

# TEXTILE BULLETIN

VOL. 61

DECEMBER 15, 1941

NO. 8



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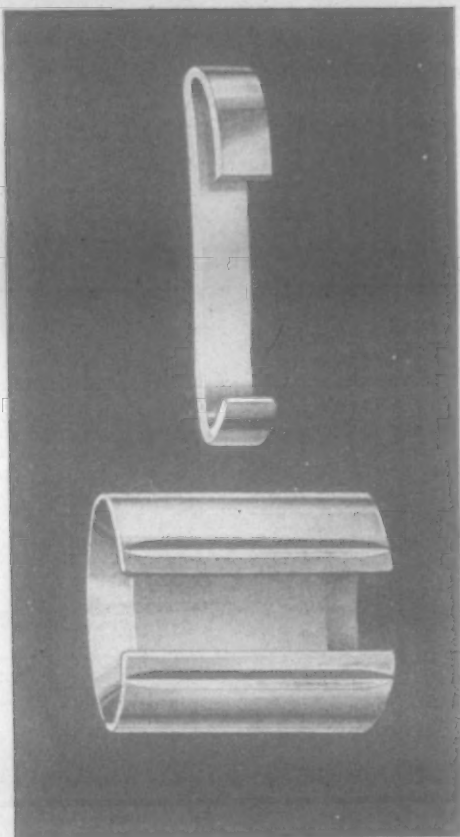
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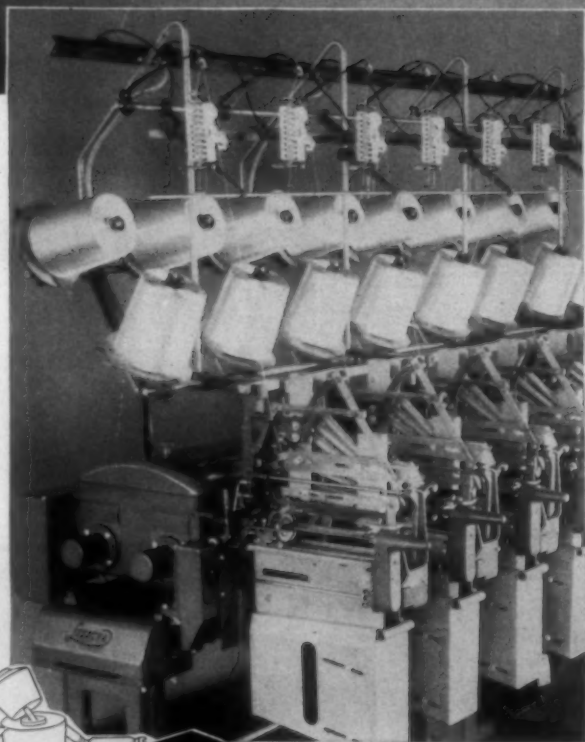
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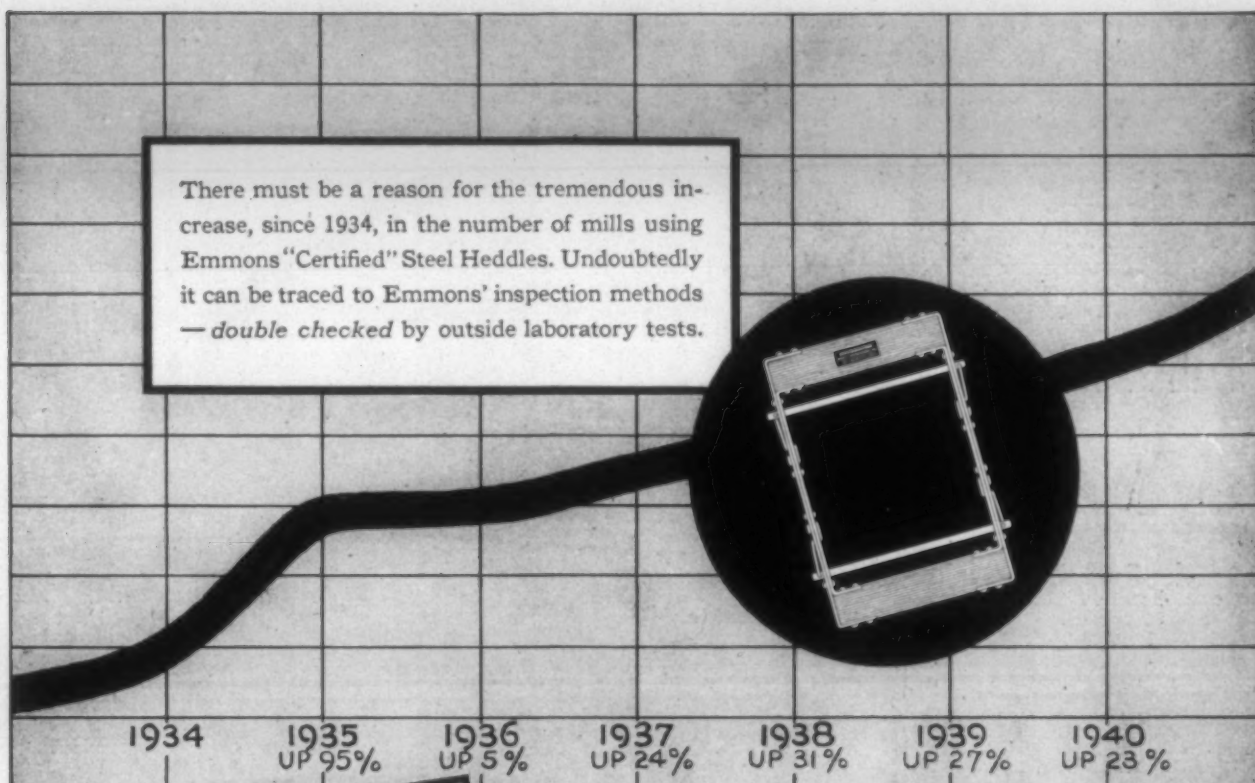
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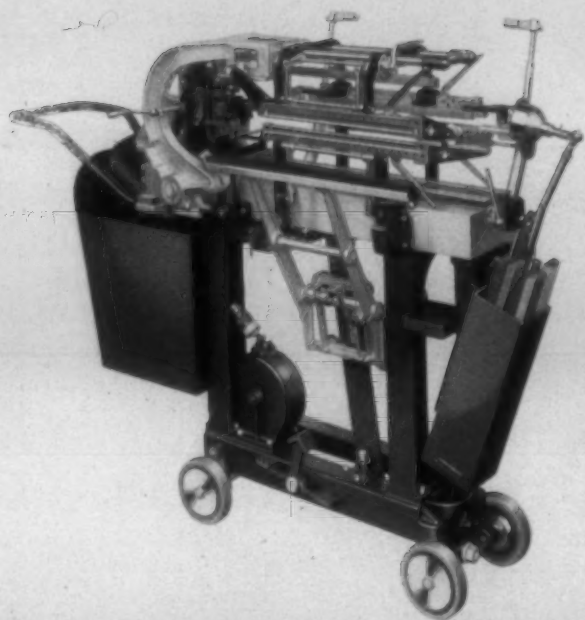
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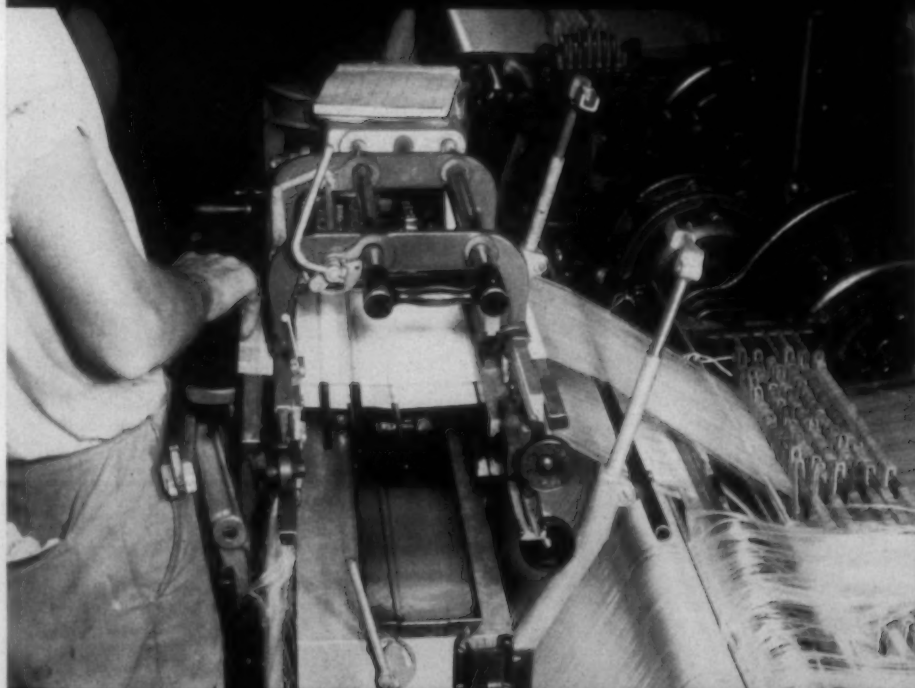
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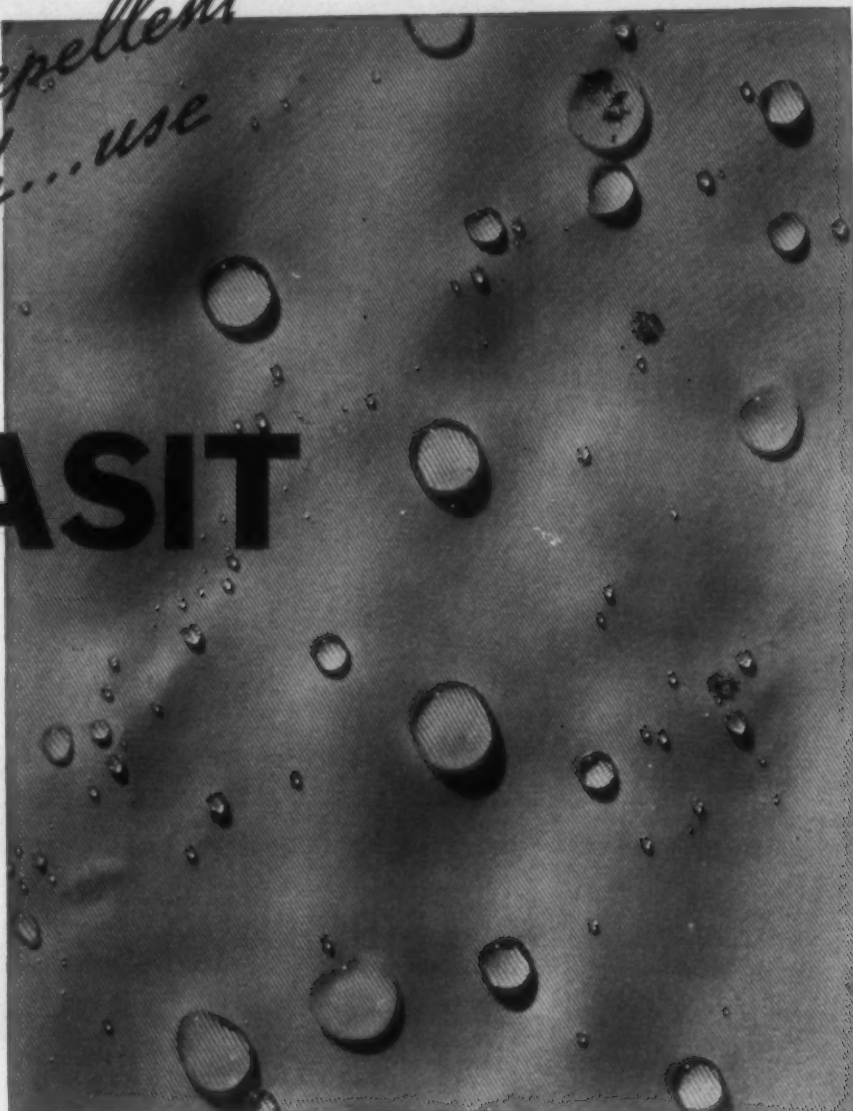
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What do we mean, "idea factories"? They are our extensive research and development departments where ideas are the raw materials. Here, skilled textile mill men work side by side with eminent textile scientists, combining theory with practice, to develop the ideas which will be tomorrow's newest production methods and tomorrow's newest fabrics.

Many of these new ideas can't be adopted during the emergency, but that doesn't deter this research work. When conditions do return to normal, American Viscose Corporation will be able to offer you a vast warehouse of profit-making ideas, tested and proved practical in our experimental plants.



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## DEFENSE URGENCY

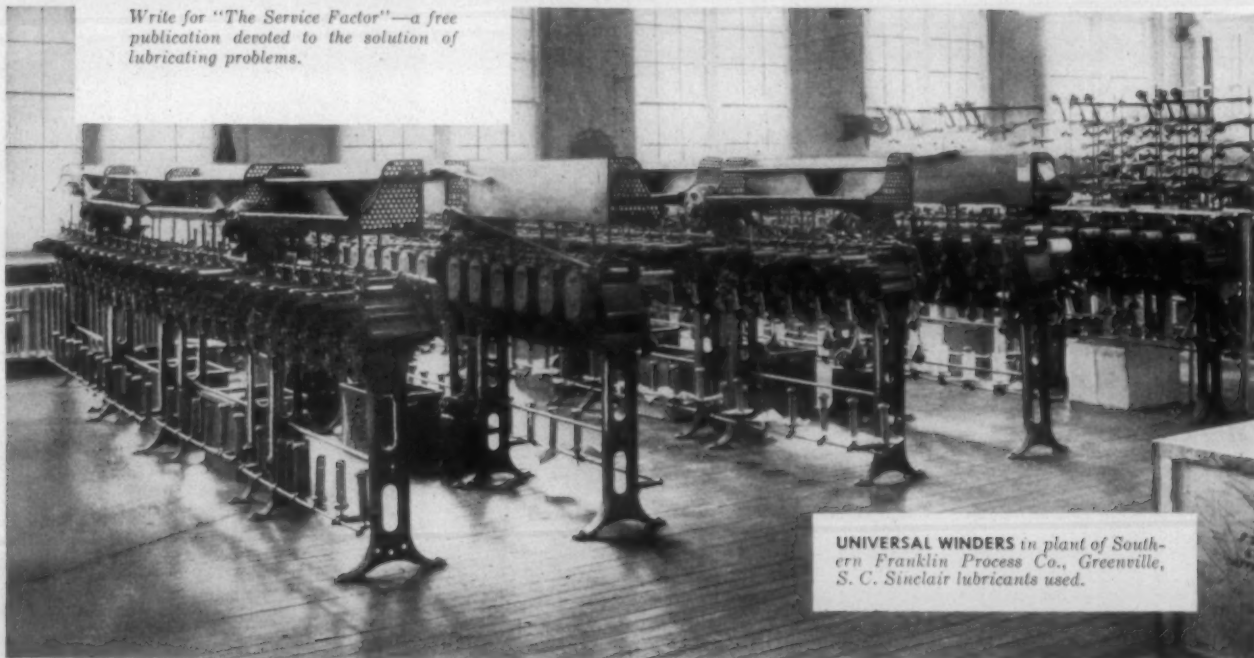
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## Nelson Tells Industry It Must Do Much More In Present Crisis

Donald M. Nelson, executive director of the Supply Priorities and Allocations Board, told the 46th Congress of American Industry, on December 3rd, that "—business and industry in this country, particularly big business and big industry, need to do more rather than less than they have been doing to adjust themselves to this program—We are not playing for marbles; we are engaged in a life-or-death contest which is being conducted on a basis of winner take all." Any man in business might do well to read and study this talk by a business man who is now in one of the most responsible governmental positions.

**I** NOTICE that the slogan of the National Association of Manufacturers, as carried on letterheads and otherwise, contains these words: "Leadership in the preservation and improvement of private enterprise." That slogan makes it altogether fitting for me to address you this morning on the general subject of the future demands which our defense program is going to make on American industry. For one of the great things at stake in the present national emergency is nothing less than the preservation of private enterprise in this country; and the blunt companion truth to that is the simple fact that if private enterprise is going to come through this ordeal it has got to undergo considerable improvement.

I do not say that as an unfriendly critic of industry. I am a business man; I have been one all my life, and I have no desire to be anything else. I have an acute selfish interest in wanting to see our free system of private enterprise come through this emergency intact. So I hope you will feel that I am talking as a friend, rather than as a critical outsider, when I say that business and industry in this country—particularly big business and big industry—need to do more rather than less than they have been doing to adjust themselves to this program and to fill the responsibilities which the program brings them.

That is perhaps an unpleasant statement. I want to repeat that I make it as a friend—as an insider, as it were—rather than as an outsider. And I make it, not

because the record of business and industry to date has been bad—because it decidedly has not—but rather because the emergency is so immense and its demands upon all of us are so very great that nothing less than the very best we can give will be good enough.

Let us examine the situation in detail and see why that statement is justified.

The big outstanding fact before us today is that our defense production effort, huge as it is, is not big enough.

### Life Or Death Conflict

We have talked a good deal about an "all-out" effort. In the very nature of the case it has got to be all-out. We are not playing for marbles; we are engaged in a life-or-death contest which is being conducted on a basis of winner take all. We are today making military expenditures at a rate of approximately one and three-quarter billion dollars a month. Considering the fact that this program got started less than eighteen months ago, that is an amazingly fine achievement; yet it unfortunately remains true that production at that rate *won't beat Hitler*. It won't even keep Hitler from beating everybody else. I believe that at the very least that production volume must be doubled.

Obviously, if we undertake to double current armament production—as I am convinced we must do—and set ourselves to turn out military goods at rate of better than forty billion dollars a year, the future demands on American industry are going to be ever so much greater than they have been so far. It is equally obvious that as the demands increase, so also does the responsibility. The government can't do this job alone. It can chart the program, set the sights, put up the money and coordinate the various efforts—but the actual job of getting the goods out must be done by industry itself.

Now this of course is by no means the first time that American industry has faced the necessity of reaching new production levels. It has happened before, in time of peace. All through the 1920's American industry was amazing the world by the way in which it continually



kept on stepping production up to meet an ever-mounting demand. This is the same thing today—except that the incentive is different, and the stakes are almost infinitely greater: American industry is being asked to make things at a constantly increasing rate. It is being asked to make different things than it made in the twenties, of course, and in many cases it has to make them in a different way: but basically the problem is much the same.

And note one thing well: it is not simply the new military demand which has put this great new load on industry. The demand for purely civilian goods has gone up, too. Our national income today stands close to 95 billion dollars. During the coming year it will certainly go higher. American industry today would be facing boom demands for production even if it were producing no military goods whatever. In all history, no nation's productive mechanism was ever called upon for an effort as titanic as the one which we are called upon to meet today.

This tremendous demand has of course brought dire problems with it. The most obvious, pressing and immediate are the problems of shortage in raw materials; allied with them are shortages, either actual or potential, in the means of turning those raw materials into finished goods. It must be clear that if we take a military demand which is equivalent to just about half of our entire national income for that famous boom year of 1929, and add to it a consumer demand which is actually greater than the consumer demand of 1929, something drastic has got to be done about the supply of materials. Either the sources have got to be very greatly widened, or the flow of the material in question must be sharply controlled—or both.

We have already been obliged to set up those controls for most of the basic raw materials. Priorities ratings began to be applied about a year ago. Since the demand for all of these materials has never ceased to go upward, we have now got to the point where priority ratings by themselves will no longer control the flow properly. Hence we are today moving into allocations. We are now undertaking the huge task of economic planning, material by material and industry by industry, to make certain that our stocks of the vital materials are apportioned out according to our national need.

Now I am sure that no one in this audience needs to be told that out of these two developments—this ever-rising demand for all manner of goods, both military and civilian, and this ever-tightening direction which must be imposed on the flow of materials if we are to avoid complete chaos—out of these two things there have come many grave and weighty problems for both government and industry. With those problems come responsibilities. Those responsibilities are not government's alone. They are shared equally by industry. Indeed, some of them cannot possibly be met by anyone but industry; meeting them, in a direct and real sense, is the price industry must pay for survival. Our free enterprise system is indeed done for if *all* of the responsibilities in this crisis must be met by government.

Let's take up the most pressing of these problems and examine the responsibilities which go with it. Let's spend a few minutes talking about the effect which these material shortages are having on manufacturers who are not producing goods for defense.

It is elementary, of course, that a manufacturer who is unable to get the materials he needs must either regain

his access to a supply of those materials, find some way to operate without them—or go out of business.

What is happening today, as these material shortages bring more and more manufacturers face to face with that simple but unpleasant fact?

The whole emphasis is being put on what *government* ought to do.

Day after day I receive these protests—"You've got to let us have the materials we need . . . You've got to give us government orders . . . You've got to help us out of this situation because we'll be ruined if you don't."

Now I am of course perfectly free to admit that this does pose a very searching question for government . . . for me, as a government official. We in government must make the most just and equitable distribution of these scarce materials which is possible for human beings to make. We must rearrange our procurement practices so that every producer who *can* make military items is put to work making them—for we shall eventually need so much of everything that we can allow no usable productive mechanism to go idle. We must extend every form of help which an intelligent and conscientious government can extend to those who are pinched by these shortages. I am frank to say that we have got to find better answers than we have yet found for these problems, and we have got to do it quickly.

### Industry Has GOT To Do Better

But when all of that has been said, it remains perfectly true that only half of the responsibility will have been met. If *we* have got to do better—we in government—so have you in industry. This is your problem as much as it is ours. This is your program as much as it is ours. The price of survival for you is the same as it is for us.

First, as individuals.

If you, as an individual producer, can no longer get the material you need—make sure that you really can't get it, before you conclude that government action is your only hope. Make sure that you have tried all the sources of supply. Make sure that you have made every effort which you, as an intelligent and aggressive manufacturer, can make to fit yourself into the defense production picture, before you conclude that you are lost if the Army doesn't call at your door with a contract for you. If consumer demand changes unexpectedly, so that you can no longer make a profit by turning out the goods you have been producing, don't you make every effort to see what you *can* make that the consumer does want, before you throw in your cards? The same chance is open to you today. You can find out what the Army and Navy are buying. You can find out what the prime contractors need in the way of parts and components. If you're in a jam, the only sensible thing to do is to go out and wear out a little shoe leather trying to get some of those orders—*isn't it?*

Nor does it stop there. The search for substitute materials and alternative processes is nothing new for American industry. It is part of the job. If you can't get the stuff you've been using, it most certainly is up to you to make every effort to find some other material that you can use: to devise ways of making more goods out of less material; to explore to the fullest the possibilities in conservation and simplification. That expression, "free enterprise," is made up of two words, remember—and

"enterprise" is one of them.

But if you have an individual responsibility, you have also a collective responsibility.

In the very nature of things, the difficulties caused by shortage of materials bear more heavily on the small manufacturer than on the large one. The large manufacturer has assets in the way of engineering and managerial staffs which the small fellow does not have. It's easier for him to do the research and experimentation which conversion from one type of production to another makes necessary; it's easier for him to study military contracts in such a way as to get the needed information about costs and production problems; even the job of finding out what the Armed Services are buying and getting consideration as a possible source of supply can be done much more readily by a big firm than by a small one.

Now it is of course true that in this present audience there are not so very many of the really small producers. I realize that most of the membership of N. A. M. are small industrialists; must most of you in this room represent the larger firms and corporations. That is why I am talking now about your *collective* responsibility. Let's examine that part of it in a little detail.

#### Big Fellow Must Help Little Fellow

I believe that in our present emergency it is up to the big fellow to help the little fellow. There are a good many ways in which he can do that. The most obvious, of course, is through sub-contracting. A large corporation holding large prime contracts under the defense program has in its possession a huge amount of this aid-to-small business which we talk so much about these days. Should that large corporation wait for an Act of Congress, a directive from the Secretary of War or an order from someone in the Office of Production Management before it farms out a substantial portion of that work—or should it act on its own initiative in the matter? I think it should act on its own initiative. I think it ought to—it *must*—make every possible use of the facilities which exist outside its own corporate walls, consistent with the meeting of its contractual obligations.

And that is not all of the story, either. I can think of no good reason why our large manufacturers should not actively aid our smaller producers on this whole problem of conversion. There are engineering and research skills and services which can be made available. There are, I believe, extensive possibilities in the way of the sharing of knowledge, the assistance in the matter of pooling resources, guidance and help in the bringing together of separate productive resources. I am convinced that in this broad field it is up to the big manufacturer to extend a helping hand to the little manufacturer.

All of this may sound like strange advice. The world of business has always been fiercely competitive: I hope and pray that it will remain so. Why, then, this talk of big competitors helping little ones?

To answer that I want to go back to my opening remarks. It is nothing less than our whole system of free enterprise which is at stake in this crisis. That system will survive *only* if it proves that in a time of great crisis like the present it can continue to function as a serviceable and efficient mechanism. And our national productive system will not be a serviceable and efficient mechanism if, in this hour of unprecedented demand for goods,

it develops that only those productive facilities which are in the hands of the huge and powerful corporations can be kept in production.

In other words, we face this simple fact: American industry today is under the necessity of shaping its policies by something above and beyond the daily profit-and-loss balance sheet. The good of the nation rises superior to all other considerations. We have got to show that capitalism can and will meet the requirements of a national emergency if we wish to have capitalism continue to exist.

That fact—and if you look about you in this tragic world today, I am sure you will agree that it is a fact, and an inescapable one—must be a guiding principle for industry throughout this emergency. I suggest that it must apply in fields other than this one of adaptation to shortages of material. It is part of this whole subject of the responsibility which rests upon industry today. That responsibility, most simply stated, is nothing less than the responsibility for doing the very best job that can possibly be done: the best possible job from the standpoint of what this nation as a whole needs, and not merely from the standpoint of what is going to look well on the corporate balance sheet at the end of the year.

Take a simple example. Consider any industry which produces one of the raw materials which we need so badly. The emergency of course calls on that industry to produce as much of that material as is humanly possible. Since the demands are so overwhelming, we run into a shortage of that material. Because of that shortage, we are obliged to ration the use of that material very sharply; and because it is so rationed and controlled, a considerable number of business firms are forced to the wall and large numbers of people are very seriously and painfully effected.

Now suppose, after the emergency ends, that it develops that this hypothetical industry has not, in fact, been producing to the limit of its capacity. Suppose it restrained itself, either because it feared some glut of productive capacity after the war, or because it hesitated to admit new competitors to its own field, or because the profit margin happened to be greater at less-than-capacity production than at full capacity. Do you for one minute suppose that the American people will then be disposed to consider that that industry has met its responsibilities in this emergency? And do you imagine that any industry which is considered not to have met its responsibilities is going to have an easy or a pleasant time of it thereafter?

Take a broader example. Our whole social and economic system rests on the fact that the little business man can survive and prosper if he is efficient and energetic. If in this emergency we can gain military security only by driving the small fellow out of business: if we emerge from this crisis with our free competitive system turned into something that is neither free nor competitive—well, *if* that happens, I for one do not want to be around to see what happens next, because I am very sure that I would not enjoy it.

Now of course all that I have been saying here about industry's responsibilities in this emergency applies equally to all of the groups and divisions which make up our great American society. If industry must exercise

(Continued on Page 42)



# South Carolina Division, Southern Textile Association, Meets At Clemson

WITH approximately 250 members present, the South Carolina Division of the Southern Textile Association held its fall meeting at the Textile School, Clemson College, Clemson, S. C., on the morning of November 15th.

W. W. Splawn, of Kendall Mills, Pelzer, S. C., chairman of the S. C. Division, presided.

*The December 1st issue carried the first part of the stenographic report of this meeting, consisting principally of an inspirational talk by Judge J. S. Thurmond, and a very instructive talk by J. C. Cunningham, of The Kendall Co., on Salvaging of Repair Parts and Supplies. The report of the meeting continues here, immediately following the talk by Mr. Cunningham.*

**Mr. Cunningham:** I think perhaps you are interested in holding a question-and-answer session this morning, Mr. Chairman?

**Chairman:** Yes, sir.

**Mr. Cunningham:** I have not gone into detail in talking about your specific machine problem, naming it by the part, whatever it is, but have tried to give you a general picture of how you can carry out a salvage program—tie it in with your maintenance program and then effectively administer it. I should like to admonish you at this point of something Judge Thurmond said, and that is that we must take notice of what is coming and do a good, conscientious job of studying our salvage program so we may save as much as possible of certain materials, particularly, gentlemen, those steels, alloys and metals other than cast iron that are so vitally needed in national defense. You are getting pretty slow deliveries today; I have been studying that situation for several months, and they are getting slower and slower. Sometimes we are kicking unnecessarily; we are overly vexed by it. We are calling it a headache. One man wrote recently: "Suppose we do kick about it and fuss about it and call it a headache; the headache will be a very small affair in comparison with what we would have if the supplies and materials necessary for our rearmament and for the support of our Lease-Lend Act fall short of the goal." I think that is apparent in the light of Judge Thurmond's address and from what we know from reading our newspapers.

If there are any questions you would like to ask on which I could help you in a general sort of way I shall be glad to discuss them with you.

**Chairman Splawn:** If any of you have any questions to ask Mr. Cunningham on any specific problem I am sure he will be glad to answer them for you. I know that we have all enjoyed his address and have profited from it.

**A Member:** I should like to ask Mr. Cunningham and these other gentlemen here if any of them have worked out any program or system in the mill whereby you anticipate breakdowns on machines or interruption in production. To be more explicit, I might put it this way. The average fixer in a mill, for instance, never does anything to a machine until it breaks down or until production is held up. In the spinning room, for instance, where you have drive belts, a drive belt breaks and comes apart, and the fixer goes and puts it together and starts the machine up. On the cards, when a card band breaks the card hand goes and puts on a new band and starts the machine up. On other machines—roving frames, for example, we have a breakdown, a major breakdown that may last an hour or so, or sometimes longer. When that happens the fixer goes there and fixes that machine and gets it back in production. Occasionally on the spinning frame, particularly in larger mills, the pick motion gets out of fix and you start building bobbins that are entirely too small. That may go on for days or maybe weeks before the doffer kicks or the second hand or the overseer notices it and does something about it. Is there any particular program put into effect to anticipate troubles of that sort and prevent them before they happen?

**Mr. Cunningham:** I would say that the gentleman's question might be answered in a way by my statement there about quality. As to all of those things that affect quality you have reasonable means of determining how far something can go before you should take it off. It is quite variable; no two of you, perhaps, will agree on it, and so each of you will have to decide it for himself. The fellow that can run it longest and get the same quality is perhaps a better man. Sometimes you can get it by gauge; sometimes you can get it by variation in the finished product. Sometimes it is sliver or thread analysis that tell you there is something wrong with the machine. Then your day-to-day knowledge of the machine perhaps tells you what is wrong and you go through the necessary salvage program. At other times it is a problem of actual physical measurement. Perhaps you can get at it in that way. Some mills do.

**Chairman:** Sometimes things do not go wrong for very long before we hear about them. I might say that in  
(Continued on Page 43)





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# Report of Quartermaster General on Textile Procurement for Army

AT the beginning of our past wars, the Army has gone into the conflict with inadequate clothing and equipment. When this emergency started, our shelves were bare. The Congress has provided funds to clothe and equip our present Army. I have energetically pushed this procurement program to supply our present Army and to lay in the reserve authorized by Congress. For the first time in a grave national emergency, its armed forces are properly and adequately clothed. Large contracts have been placed with industry for delivery during the following seven to eight months which will insure the replacement of the clothing of our present Army as it wears out; will provide the cotton khaki cloth and the woolen cloth to make into uniforms this spring and next summer for the use of the troops next summer and next winter.

To the layman who does not understand operating a department store or furnishing supplies to an army, the procurements look very high. He says to himself, How many shoes should you purchase for an army of a million and a half? He answers himself—if each man has two pairs, that would be 3,000,000 pairs of shoes. Let me analyze shoe purchases: Each soldier requires during his first year a minimum of 10 pairs of shoes, in use, on hand in camps and depots, and on order or in the process of being ordered. Namely, three pairs issued to each man when he enters, two pairs are required to replace the shoes he will wear out during the first year. One pair must be on hand at the camp or en route to the camp ready for issue in order to have a sufficient number of shoes to properly fit the man, there being over 142 sizes and widths of shoes. One pair per man must be on hand in our distributing depots to keep the supply filled at the camps. One pair must be in process of manufacture and one to two pair on order, as it takes six weeks to two months to tan the leather going into these shoes, to say nothing of the time to manufacture the shoes after the leather has been tanned. This totals 10 pairs per man, which multiplied by a million and a half, would be 15,000,000 pairs of shoes. Actually 16,000,000 pairs of shoes have been procured, but of that number between four and five million pairs have already been worn out and discarded. In the recent maneuvers, many of the infantry troops, due to the long daily marches, wore through a pair of soles, the best you can buy, in 10 days. All shoes, in general, are half soled and repaired twice before being discarded. There is another factor which

requires a large stock of shoes: we must keep large stocks of them in the Philippines, Hawaii, Panama, Canal Zone, Alaska, and at all our new island bases, and we must keep a sufficiently large stock to be sure to properly fit a soldier, because a soldier with sore feet is no asset to the Army.

Neither estimates nor procurements have been based upon providing for a force of 10,000,000 men. Critical items, i.e., cloth and findings, which require a long time to procure have been appropriated for and are being procured on the basis of approximately 3,200,000 men. Essential items, i.e., all other items of clothing and equipage other than cloth and findings, have been estimated for and procured on the basis of approximately 2,000,000 men. These facts are borne out by the estimates submitted to Congress and the appropriations made in accordance with such estimates.

At the beginning of the current mobilization it was necessary to make short-term contracts for the procurement of cloth and the conversion of cloth into garments. Such contracts tend to disrupt business and increase prices. Furthermore, it is impossible to supply a large army on such a basis, as it takes about nine months to obtain finished clothing and equipage after funds become available. In order that the Army would not upset the market and at the same time have a carry-over in those articles most difficult to procure, the Congress, under Public No. 6, Seventy-seventh Congress, approved February 13, 1941, appropriated \$175,000,000 for the procurement of those items most difficult to obtain, as well as to permit orderly procurements at such times and in such manner as the market would not be materially affected. The uniforms now being manufactured and issued to the Army this winter are being made from cloth procured through this special appropriation. The current procurements of woolen cloth will be converted into garments to be worn one year hence, as well as provide the cloth reserve for the augmenting force. Hereafter, under the several times to be discussed, will appear quantities procured under the \$175,000,000 program. Such items and such quantities are in accordance with the policies referred to above.

**White Clothing:** In order to safeguard the health of the soldier the Army is fed under the best possible sanitary conditions. This necessitates the issue of clean, white clothing to all food handlers. Likewise, enlisted men serving in hospitals as medical attendants require white clothing.

The allowances of white clothing are four suits to bakers and cooks, mess attendants, and medical attendants. In addition, butchers are issued six aprons and bakers

\*Excerpts from Letter of Quartermaster General of the Army, dated November 25, 1941, to the Chairman of the House Committee on Appropriations. Taken from The Congressional Record of November 28, 1941.



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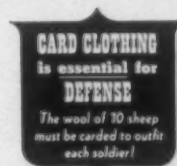
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and cooks eight aprons. Complete replacement is required each year. The total number of men in the Army authorized to be equipped with white clothing is approximately 75,000. Take for example, coats; during last year four coats were issued initially to 75,000 men. Four additional coats were issued to replace those worn out. During this year an additional four are being issued to replace those worn out. This makes a total of 12 coats each for 75,000 men, or 900,000 coats. The additional 200,000 coats represents those stocks in the pipe line of supply—in the depots and in the posts, camps, and stations—to have sufficient on hand to fit the men in the proper sizes. The white clothing procured is the standard commercial article which is used by civilians in bakeries and restaurants. The actual procurements to meet the requirements of these two fiscal years have been as follows:

Item	Quantity	Cost
Aprons	1,579,089	\$ 656,154
Caps	879,964	175,763
Coats	1,104,163	1,408,410
Trousers	1,161,313	1,339,405
Total		\$3,559,732

**Mosquito Bars:** It takes 10 yards of netting to make one mosquito bar. A mosquito bar is an absolutely essential part of a soldier's equipment if he is sleeping in the tropics or in the field in the summer. The mosquito bar is a rather delicate piece of equipment and wears out quickly. Sometimes in the field a mosquito bar will only last a month and must be replaced. It is absolutely essential that soldiers be protected from the bites of malaria and yellow-fever mosquitoes.

Actual procurement of netting to date has been 21,500,000 yards, at a cost of \$7,638,932. This will make 2,150,000 mosquito bars. Funds have been provided to buy a total of approximately 40,000,000 yards of mosquito netting. Additional procurements of netting will be made to have available to make into mosquito bars as they are required. It is estimated that under maneuver conditions a new mosquito bar will have to be furnished to each man once each year.

**Bedding:** Each soldier is authorized and issued two blankets and one comforter. The commanding officer may, in his discretion, issue additional blankets. In all of the Northern parts of the United States and even in the South the issue of blankets averages four per man. On a basis of 2,000,000 men, at four blankets per man, 7,628,000 blankets were procured. Because of the difficulty and length of time required in blanket procurement, 2,000,000 blankets were procured under the \$175,000,000 program. This makes a total of 9,628,000 blankets procured.

Sheets are issued on the basis of four per enlisted man. Two sheets are on the bed and two in the laundry each week. As the wear on sheets is very severe, complete replacement is required each year. Eight times one and a half million men requires 12,000,000 sheets. The remaining 6,000,000 represent those sheets already worn out and those required in depots, posts, camps and stations for the pipe line of supply. The allowance of pillows is one per man; pillow cases, two per man.

Blankets and bedding are provided for many purposes other than actual troop strength. There are many recep-

tion centers and recreation camps which all must have a supply of bedding, and this bedding being for transient personnel must be frequently renovated and laundered, thus materially increasing its mortality. The statement was made that blankets were sold at the Jeffersonville Quartermaster Depot last spring for 15 cents each. These blankets had been worn out through fair wear and tear, were unfit for further use, and were disposed of through salvage as woolen rags.

**Raincoats:** 4,972,000 raincoats have been procured at a total cost of \$20,559,000. Two million raincoats have been issued as an initial issue of one to each man. During the fiscal year 1941, 400,000 raincoats were worn out and replaced. During the current fiscal year it is estimated that 900,000 will be worn out and have to be replaced. This totals 3,300,000 raincoats. One million raincoats are in the pipe line of supply from the manufacturer to depot stock, to stock in post, camp and station. Due to the difficulty of procuring raincoats, 535,000 raincoats are being procured under the \$175,000,000 program.

**Mackinaws:** 1,400,000 mackinaws have been procured at a cost of \$2,651,000. Mackinaws are issued to mechanics, truck drivers, members of the armored force, to the Coast Artillery, and are provided for approximately 50 per cent of the Army. Initial issues of this item have been 750,000. One hundred thousand of these have been worn out and have had to be replaced. The remainder of the purchase is in the pipe line of supply from the manufacturer to depot, to post, camp and station.

**Headgear:** The headgear for the Army is one of our most difficult problems. At the beginning of the emergency the campaign hat and the garrison cap were our principal items of headgear. Due to the fact that the campaign hat contains a large percentage of foreign rabbit fur, it was difficult and expensive to procure in amounts sufficient to equip a large Army. It was, therefore, discarded for all elements of the Army except for the tropics, the Cavalry, and the horse-drawn Field Artillery. The garrison cap, being an item only good for garrison use, was discarded. The headgear now consists for a majority of the forces of the so-called overseas woolen cap for winter use and the so-called overseas cotton khaki cap for summer use. In addition to this it was necessary to provide in the winter time a winter cap for field use, and as a temporary expedient for summer use a cotton khaki hat with a brim was used in order to protect the eyes of the soldier. For Alaska there is a warm helmet and for the tropics a fiber helmet. This represents a large number of types of headgear, and due to the various sizes in headgear large stocks must be maintained not only in all depots but in all posts, camps and stations, in order to properly fit the soldier.

Recently there has been developed a new type of steel helmet for use in combat which has a fiber liner. It is anticipated that this fiber liner can be worn for more or less all purposes and will result in doing away with many of the different kinds of headgear mentioned above.

**Cotton Trousers:** Trousers, cotton, khaki, are issued on the basis of four per enlisted man in the United States and five per enlisted man in the tropics. One additional pair of trousers is required as replacement per year in the United States; and in the tropics, where khaki trousers

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GENERAL OFFICES and FACTORIES—PASSAIC, NEW JERSEY

are worn all year an additional five pair are required for replacement.

"The total requirements for fiscal years 1941 and 1942 are 17,743,736 pairs, which may be further broken down as follows:

To initially equip the soldier .....	8,099,278
Replacement of wornout garments .....	3,570,000
Stock for size purposes .....	6,074,458
<b>Total .....</b>	<b>17,743,736</b>

The total procurements of trousers, cotton, khaki, during fiscal years 1941 and 1942 are 14,955,585 pairs, at a manufacturing cost of \$10,131,478.

**Herringbone Twill Clothing:** Some months ago the War Department decided to change from denim clothing and issue to the soldier a herringbone twill garment with a military appearance that would be suitable for drill as well as work purposes. The issue of this garment has just been initiated in the Third Corps Area. It is contemplated that all stocks of denim clothing on hand in a corps area be used up before any issues of herringbone twill clothing are made.

To completely equip an army of 2,000,000 men and maintain them for one year with this garment will require stocks of one- and two-piece suits totaling 11,000,000 complete outfits. This quantity is arrived at on the basis of three complete outfits per man, replacement of one outfit per man during the year, and a stock of 3,000,000 units for stock and size purposes.

The Army is in the process of procuring the necessary stocks to equip and maintain the authorized force for a period of one year.

Current cost of these garments is as follows: suits, one-piece, \$3.01; jackets, \$1.91; and trousers, \$1.68.

**Socks:** Socks are issued on the basis of nine pairs per enlisted man, with an additional allowance for very heavy socks in the cold-climate areas. During the first year a man is in the service, nine additional pairs of socks will be required as replacements. During the second year in the service it is estimated that he will require 18 pairs of socks. Stock is required for stock and size purposes.

Total procurements to date are 77,921,897 pairs of all types of socks at a total cost of \$15,303,705. This includes cotton and woolen socks and some special types of socks for cold-climate areas. For an Army of 2,000,000 men for two years, 18 pairs of socks per man per year would be 72,000,000 pairs of socks. The balance is in special-type socks for the Arctic and a pipe-line reserve.

During the recent maneuvers the mortality of woolen socks was very heavy. An infantry soldier cannot march in socks with holes in them, as blisters and sore feet result.

**Underwear:** Procurements of underwear during fiscal years 1941 and 1942 have been as follows:

Item	Quantity	Cost
Drawers, cotton, shorts .....	32,546,414	\$ 9,275,363
Undershirts, cotton .....	33,262,736	5,414,092
Drawers, woolen .....	14,435,193	15,868,294
Undershirts, woolen .....	14,438,121	16,145,590

Each enlisted man is authorized seven suits of underwear within the continental United States and eight suits

in the tropics. This means that if the enlisted man is lucky with his laundry he gets a change of underwear every two or three days. The allowance may be drawn in either cotton or woolen. Complete replacement is required each year. One-half of the initial allowance must be maintained in stock for size purposes and to cover the period when industry can convert dollars into garments.

The foregoing procurements represent actual requirements for fiscal years 1941 and 1942, except in the case of the woolen underwear. In the excepted case 4,000,000 of each of these garments were provided for under the \$175,000,000 program.

The requirement of drawers, cotton, shorts may be broken down as follows:

Initial issue .....	11,000,000
Replacement .....	15,600,000
Pipe-line stock .....	5,500,000
<b>Total .....</b>	<b>32,100,000</b>

**Shirts, Cotton, Khaki:** This item is issued on the basis of four per enlisted man in the United States and five per enlisted man in the tropics. One additional garment must be provided for maintenance in the United States and five additional in the tropics for all-year wear. Procurements to date total 16,880,828 garments at a manufacturing cost of \$10,605,457. These may be further broken down as follows:

Initial issues .....	8,386,340
Replacements .....	3,690,000
Reserve under the \$175,000,000 program .....	2,005,000
Pipe-line stock .....	2,799,488

**Barrack and Field Bags:** The barrack bag is issued on the basis of two per enlisted man. In the barracks and in the cantonments, it is utilized to hold soiled clothing. During changes of stations and on other occasions it is utilized by the soldier to hold all of the clothing not being worn by him. One bag goes to the laundry with the dirty clothes, and the other bag is retained by the soldier.

One additional bag must be provided as replacement the first year, and two additional bags as replacement in the second year. The soldier when discharged takes one bag home with him.

Initial issue and maintenance requirements for fiscal years 1941 and 1942 total 5,600,000 bags. A small stock is necessary to meet supply requirements and provide a carry-over until fiscal year 1943 funds can be converted into stock.

As of November 12, 1941, depot stocks on barrack bags totaled 1,037,691.

**Bags, Canvas, Field:** This is in reality a modified haversack. It is issued to mechanized troops, to the Signal Corps, to officers, warrant officers, nurses, etc. Approximately 50 per cent of the entire Army is issued this item. Approximately one-half of the bags in use will require replacement each year.

A total of 1,977,616 bags, field, has been procured at a total cost of \$4,255,594. This stock is sufficient to meet requirements during fiscal years 1941 and 1942.

**Leggings:** Leggings are issued on the basis of one per enlisted man in the United States and two per enlisted

(Continued on Page 35-F)



AN

# Essential Industry

**T**HE FORESIGHT of leading industrialists in the textile and chemical fields in 1917 pays dividends in 1941. The indispensability of an integrated chemical industry to our national welfare and security has been duly recognized. Today, a well-rounded organic chemical and dyestuffs industry reaches maturity, ably serving the Nation in the existing emergency. It is now supplying great quantities of vital materials for use in the manufacture and coloring of textiles, paper, leather, paint, rubber and numerous other diversified products.

Research in the field of dyes has led the organic chemist to the development of many new and valuable chemical products. Neoprene chloroprene rubber, synthetic camphor, rubber accelerators and antioxidants, photographic developers, pharmaceutical chemicals, perfume bases, refrigerants and air conditioning chemicals, tetraethyl lead, textile and dyeing assistants, water repellents, are typical representatives resulting from the growing knowledge of chemistry.

Many organic chemicals required in dyestuff manufacture are equally indispensable to the defense program. Despite this, however, dyestuff production is at an all-time high! Consuming industries have thus far been supplied with a greater quantity of dyes than during any previously known period in the history of the United States! And, of prime importance, the quality and fastness of the dyed materials reaching the ultimate consumer are today better than ever before.

Constantly changing conditions have brought with them new and complex problems. The existing emergency compels us to derive the utmost value from available raw materials. This calls for close cooperation between producer and consumer—their combined effort will do much to secure the most effective and economical utilization of the finished product.

Du Pont recognizes the part it must play and hopefully looks to the future. Research is constantly in progress directed toward the development of new products and application methods. It feels confident that the knowledge and experience acquired over a period of years will help materially in overcoming a difficult situation.



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**E. I. DU PONT DE NEMOURS & CO. (INC.), ORGANIC CHEMICALS DEPARTMENT**

*Dyestuffs Division, Wilmington, Delaware*

# Production Requirements Plan to Speed Up Priorities On Essential Requirements

**T**HE new Production Requirements Plan, a streamlined scheme for granting priority assistance to manufacturers engaged in essential production, has been issued by the Division of Priorities.

The new procedure is designed to help manufacturers of products needed for defense or essential civilian use to obtain priority ratings which will cover their materials requirements for three months at a time. Under the new plan, the number of separate applications for priority assistance to expedite single orders will be reduced to a minimum.

Applications filed in accordance with the Production Requirements Plan will contain information needed by the Office of Production Management for a clear picture of existing inventories and prospective needs for scarce materials.

A manufacturer who applies for priority assistance under the Production Requirements Plan will show the type and volume of product he has been making, their use in relation to defense or essential civilian needs, the amount of scarce materials he has on hand, and the additional amounts he will require to fill his production schedule for the next calendar quarter.

In determining what priority may be granted to the applicant, the Priorities Division will take into account (1) the amount of defense or essential civilian production involved, (2) the end use of the products, (3) the materials required for production, (4) the overall policies of the Supply Priorities and Allocations Board, and (5) the recommendations of the appropriate industrial branches of the Office of Production Management.

After considering all of these factors, the Priorities Division will be able to grant the manufacturer a preference rating or ratings, geared to his needs and the importance of his products, which can be used continuously over a calendar quarter to obtain critical materials.

Ratings under the new plan may apply to all or to any specified part of the producer's materials requirements. If all the products covered in his application are destined for defense or essential civilian use, he may be given a priority rating covering 100 per cent of his needs. In other cases the rating may apply only to the percentage of his materials requirements which will be directly incorporated in products regarded as being of basic importance in defense or in the national economy. The producer may receive one or more ratings under the plan.

## Replaces Former Plan

The Production Requirements Plan will replace the old Defense Supplies Rating Plan under which priority rat-

ings were given to certain producers who found it necessary to schedule production in advance of receiving orders, but it will have much wider application. A larger number of producers will now be eligible for the new limited blanket ratings, provided they can show that a substantial proportion of their production in recent months has been essential to the defense program.

It is expected that this new device will permit an eligible manufacturer to use his rating or ratings to get all of the materials covered, and he will not have to bother to apply for aid by filling out PD-ls' (the standard application form for an individual rating) or to extend each of the individual ratings on the orders he receives. The amount of paper work involved in filling defense orders will thus be substantially reduced.

Before the inauguration of the Production Requirements Plan, a manufacturer whose products were used partly by the Army and Navy, partly by defense plants or by vital public services such as municipal fire and police departments, and partly by ordinary civilian industry might have had priority ratings on some of his orders, lower ratings on others, and no rating at all on the rest.

The net result was that he had to use a number of different processes in order to operate. The only courses open to him were to extend the high ratings on his orders in each individual case, or to use the Defense Supplies Rating Plan which gave him an A-10 rating for his defense orders only, or to make many separate applications.

The new plan will simplify this substantially. The manufacturer will first obtain form PD-25A. On this form he will show the kind and volume of products he has been making, the priority rating of orders he has filled in a recent quarter, the destination or end use of his products, and the inventory of materials which he has on hand, together with his anticipated materials requirements for the next calendar quarter.

As this information is obtained from all manufacturers handling defense or essential civilian orders, the Office of Production Management will be able to build up an overall picture of materials use and prospective requirements for defense. When the picture is reasonably complete, it will be possible to assign priority ratings with more exact relationship to the importance of a particular manufacturer's product and the total volume of materials available.

The new plan is to be applied first on a company basis. It is expected to form the foundation for similar plans on

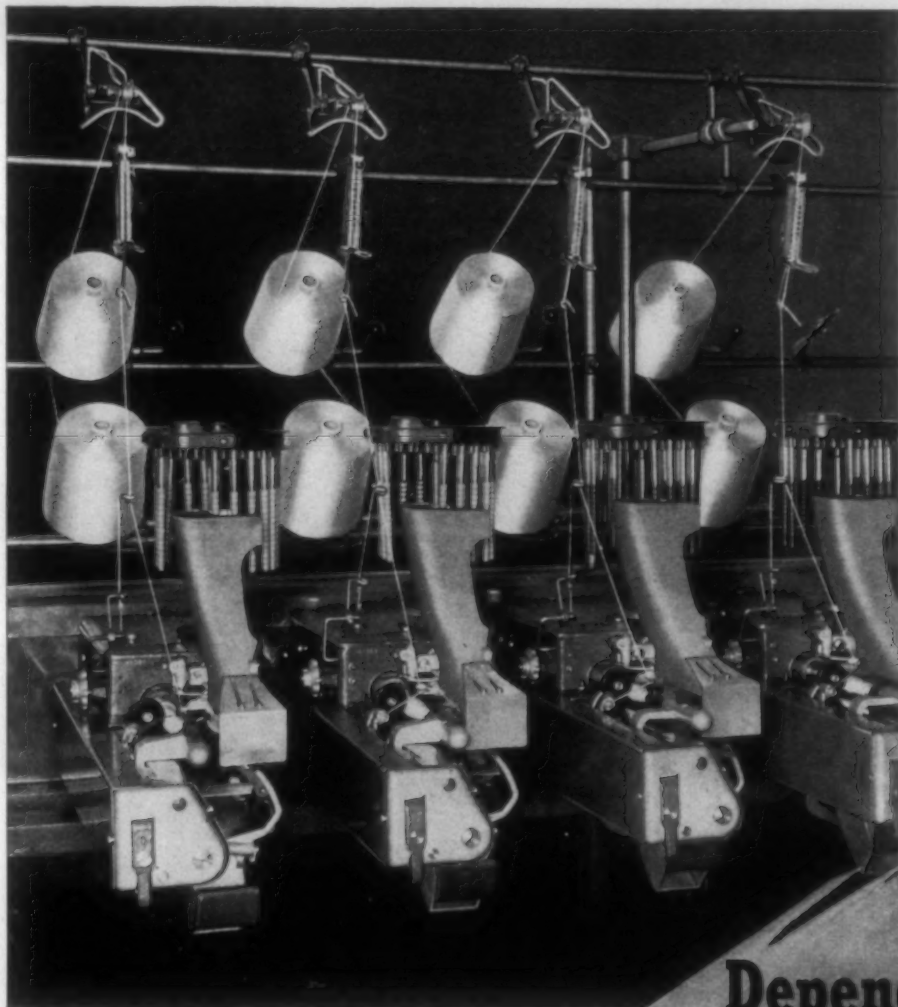
*(Continued on Page 39)*

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**AUTOMATIC FILLING BOBBIN WINDER**

**Dependable  
Productive  
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**WHITIN MACHINE WORKS** Whitinsville, Mass. U.S.A. Charlotte, N.C. Atlanta, Ga.



## Black Joins OPM At Charlotte Office

Arthur F. Black, Southern manager of the Textile Finishing Machinery Co., has been appointed production and inventory analyst for the priorities field service of the Office of Production Management, attached to the Charlotte, N. C., office. J. E. MacDougall, formerly with Smith-Drum & Co., is manager.

## Springs Workers Get Stamps for Christmas Gift

The Springs Cotton Mills have purchased \$135,000 of defense savings stamps to be distributed as a Christmas bonus to all present employees.

Captain Springs stated that the distribution will be based on the service record for the year ending December 5th and that the amount of stamps should approximate an average week's salary for each full time employee.

Captain Springs is now serving in the air service of the United States with headquarters at Camp Croft, but was in the main office of the mills when he released this information.

## A. B. Carter Trophy

Gastonia, N. C.—The late A. B. Carter, of Gastonia, N. C., established a trophy which is to be awarded annually to the best all-around football player upon the high school team.

Recently at a grid banquet at the Gastonia Country Club, Dewey Carter, son of A. B. Carter, presented the 1941 trophy to Wade Walker, tackle upon the Gastonia high school team.

## Important Information On Social Security Benefits

Ninety-five per cent of employees in American industry do not know that they and their families are entitled to substantial cash benefits from the Social Security Program while under 65 years of age, according to a survey by the Industrial Relations Division of Commodity Research Bureau, Inc. The survey also revealed that the great majority of employees did not realize how large a sum their employers were contributing regularly to the various Social Security benefits.

To fill the evident need for more information on this important subject, a comprehensive 32-page booklet has been prepared by Commodity Research Bureau for distribution by employers to their workers. All information was compiled from official government sources and is presented in finished form in an attractive red, white and blue cover design. On the first page, the publishers state that the booklet "Social Security" is a "special study dealing with one of the many advantages of the American way of life. It is designed to help our citizens get full measure out of what this country has to offer."

Copies are offered to employers in quantity lots at nominal prices.

All employers and executives are invited to request a free specimen copy of "Social Security," which may be obtained by writing Commodity Research, Inc., 82 Beaver street, New York City.

## OBITUARY

### R. R. RAY

Gastonia, N. C.—R. R. Ray, 89, prominent Gaston County textile executive, died December 10th after a serious illness of several days.

He was born in Charlotte on March 23, 1852. As a young man he came to the old Mountain Island Cotton Mills near Mount Holly in 1882. Two years later, in 1884, he was transferred to McAdenville. He then worked for McAden Mills 53 years, most of which time he served as treasurer and general manager of the plant.

His activities were varied and he was identified with most of the important civic and social enterprises of McAdenville and Gaston County during that period. He was a staunch Democrat and was active in the party's councils throughout most of his life. He served as a member of the State emocratic executive committee.

Mr. Ray was a son of the late Col. C. M. Ray and Martha (McEachern) Ray, of Charlotte. He was reared and educated at Charlotte, attending private schools and the old Charlotte Male Academy. His first occupation was bookkeeping, and it was in that capacity, in 1882, that he first became identified with the McAden Mills. After reaching a position of responsibilities in that company, Mr. Ray rapidly acquired interests in other plants and became interested in various other business enterprises, one of them being an executive position and large stockholder in the First National Bank of Gastonia. He was also for many years president of the Gaston County Textile Manufacturers' Association and was a former president of the Cotton Manufacturers' Association of North Carolina.

### R. P. SCRUGGS

Rutherfordton, N. C.—R. P. Scruggs, 82, native of Spartanburg County, who was associated with the late S. B. Tanner in building Henrietta Mill, the first textile plant in Rutherford County, died at his home December 11th after a two-year illness.

Mr. Scruggs, who moved to Rutherford County in 1889, was superintendent and general manager of the Henrietta Mill for 30 years. He constructed Henrietta Mill No. 2 at Caroleen, and was likewise manager of this textile plant several years. He took over the management of the Cleghorn Mill in Rutherfordton, and rebuilt the plant, making it the first yarn mill in Rutherford County. Mr. Scruggs later operated the Southern Veneer Co. until he retired five years ago.

### H. E. BATES

Spartanburg, S. C.—H. Earley Bates, 74, prominent retired textile man of this section and resident of Route 2, Spartanburg, died December 13th at a Spartanburg hospital after a three-month illness.

At the time of his death he was engaged in farming, but prior to that had served as superintendent of the Otteray Mill of Union for two years, later going to Huntsville, Ala., where he was superintendent of the Merrimac Mill for two years.

Then he returned to this section and was superintendent of Appalache and Monaghan Mill for several years. He subsequently was superintendent of Victor Mill in Greer for eight years.

2 Extracts from  
Reports of Draper Salesman

In 1939

Page 3

FAIRM REPORT OF  
WILL DRAPER 5-16-39

Called at ---- Mill. They are changing to larger yarn beams, but I was unable to secure an order for new beam heads. They are going to save money by using old heads with a rivetted-on steel flange.

In September 1941 — Same Mill

Received order for 2 dozen yarn beams with 22" heads. The rivets on their steel-flanged heads are giving way and flanges are bending. They want to replace all their doctored-up heads with 22" Draper heads to get out of the trouble they are having. Asked them to spread their orders as much as possible on account of the Defense program.

An Example  
of How  
The Use of  
Substitutes  
to "Save Money"  
Disrupted Production  
and Finally  
Increased Costs

When we make improvements on the loom, they are the result of Careful Experiment and numerous Mill Tests to Confirm what we have learned in our own shops.

When you buy Substitute Parts, You Do the Experimenting and Pay For It. Over the years it will prove a serious loss.

In these days when it may be hard to replace the Substitutes that Go Bad, why not buy Parts that are Right? That you know will Keep Your Looms Running?

**DRAPER CORPORATION**

Hopedale Massachusetts

Atlanta Georgia

Spartanburg S C

# Nelson Urges Industry to Eliminate Waste, Plan For Future

**T**AKE a good look at your mills, your methods and the materials you use and then consider ways in which changes may be made to eliminate waste, provide for sudden expansion of military demands and consequent government inability to comply with assurances, Donald M. Nelson advised manufacturers in a speech delivered at a textile dinner conference held December 2nd at the Hotel Roosevelt.

Mr. Nelson, together with Harriet Elliott, Assistant Administrator of the Office of Price Administration, in charge of the Consumer Division, and Fessenden S. Blanchard, of Pacific Mills but presently with the OPM as Textile Consultant in the Bureau of Industrial Conservation, addressed 1,200 leading consumer, retailing and textile manufacturing leaders on the subject of "Textiles in a Defense Economy."

The dinner was unique in that it brought together for the first time during the defense emergency all of the various agencies connected with our defense economy.

Enlisted to chart a course for the industry and tell manufacturers and retailers what they could and should do to aid in accelerating the defense program, Mr. Nelson said he did not know all of the answers; the very size of the preparedness movement defied analysis of specific problems.

"But," said Mr. Nelson, "I am very glad to try, nevertheless, to give you some clues to the answers . . . ."

Calling the attention of his listeners to the increasing pace of the defense program—which he "insists" is still "too slow" and shall reach 40 per cent of our national income—and the "larger and larger bite" it is taking into the civilian economy, Mr. Nelson said, "I urge every manufacturer here tonight to go back to his mill or plant and go over this whole operation with a fine-tooth comb."

"By and large, you are uniquely fortunate in that the principal raw materials you use do not conflict directly with defense requirements." But, he asserted, there were a number of difficulties involving such things as shipping problems and disparity in the quantities of materials available. It rests upon the manufacturer "to figure out what you yourself can do in your operation to spread around the supply we have to the people who really need it."

"Simplify your lines. Plan your lines so that they will conflict to a minimum extent with possibly enlarged military demands."

"Take a look at your machinery. You are all aware that the textile industry is covered under the terms of the general maintenance and repair order P-22 which assures

the industry an A-10 priority rating for maintenance, repair and operating supplies. But does that mean you can sit back and let things take their course? I don't think so."

He told the manufacturers that, while they had assurances that copper spindles would be available when the old ones wore out, the copper picture may "get even worse than it is now." To avoid the dislocation a shortage may incur, he suggested they consider trying "to find a substitute material that isn't as tight as copper or aluminum."

At this point Mr. Nelson issued a plea for an industry-wide inventory of obsolete and useless machinery. These machines, representing tons upon tons of scrap metal, would be invaluable to the nation if salvaged and converted "into tanks and guns and new machinery."

"So you can help us—and help yourself," he summarized, "by saving and simplifying and substituting whenever and wherever possible. This need not necessarily mean a curtailment in the volume of your output. Personally I should like to see whenever possible an expansion in the production of consumer goods that do not conflict with defense items as a means of drawing off extra purchasing power and as a consequent brake on inflation."

The public, he said, is more than ready to acknowledge the necessity of these adjustments and accept them as patriotic measures.

Turning the spotlight on the responsibilities of the retailers in this emergency, Mr. Nelson asserted that they face the duty of passing on to the consumer "information about changes in quality that take place as a result of simplification or substitution."

Fessenden S. Blanchard, who because of his recent shift from Pacific Mills to the OPM, found himself in a position radically different from the one he expected to be in when plans for the conference dinner were formulated. As a member of the Pacific Mills organization, he had been "looking forward to a chance to tell other textile manufacturers what they ought to do. But since he had been "willingly caught in the dragnet of OPM," he said he would have "to be very careful not to tell" the manufacturers what to do.

After outlining the functions of the Bureau of Industrial Conservation and describing them under the headings of (1) conservation and substitution, (2) simplification, (3) specification, and (4) salvage, he launched into a discussion of the important connection informative labeling had with the execution of these functions.

*(Continued on Page 38)*



# Defense Savings Pay-Roll Allotment Plan

*Now company heads can help their country, their employees, and themselves*

voluntary { helps workers provide for the future  
pay-roll { helps build future buying power  
allotment { helps defend America today  
plan {

This is no charity plea. It is a sound business proposition that vitally concerns the present and future welfare of your company, your employees, and yourself.

During the post-war period of readjustment, you may be faced with the unpleasant necessity of turning employees out into a confused and cheerless world. But you, as an employer, can do something *now* to help shape the destinies of your people. Scores of business heads have adopted the Voluntary Pay-roll Allotment Plan as a simple and easy way for every worker in the land to start a *systematic* and *continuous* Defense Bond savings program.

**Many benefits . . . present and future.** It is more than a sensible step toward reducing the ranks of the post-war needy. It will help spread financial participation in National Defense among all of America's wage earners.

The widespread use of this plan will materially retard inflation. It will "store" part of our pyramiding national income that would otherwise be spent as fast as it's earned, increasing the demand for our diminishing supply of consumer goods.

And don't overlook the immediate benefit . . . money for defense materials, quickly, continuously, *willingly*.

**Let's do it the American way!** America's talent for working out emergency problems, democratically, is being tested today. As always, we will work it out, without pressure or coercion . . . in that old American way; each businessman strengthening his *own* house; not waiting for his neighbor to do it. That custom has, throughout history, enabled America to get things done *of its own free will*.

**In emergencies, America doesn't do things "hit-or-miss."** We would get there eventually if we just left it to everybody's whim to buy Defense Bonds when they thought of it. But we're a nation of businessmen who understand that the way to get a thing done is to *systematize* the operation. That is why so many employers are getting back of this Voluntary Savings Plan.

Like most efficient systems, it is amazingly simple. All you have to do is offer your employees the convenience of having a fixed sum allotted, from each pay envelope, to the purchase of Defense Bonds. The employer holds these funds in a separate bank account, and delivers a Bond to the employee each time his allotments accumulate to a sufficient amount.

Each employee who chooses to start this savings plan decides for himself the denomination of the Bonds to be purchased and the amount to be allotted from his wages each pay day.

**How big does a company have to be?** From three employees on up. Size has nothing to do with it. It works equally well in stores, schools, publishing houses, factories, or banks. This whole idea of pay-roll allotment has been evolved by businessmen in cooperation with the Treasury Department. Each organization adopts its own simple, efficient application of the idea in accordance with the needs of its own set-up.

**No chore at all.** The system is so simple that A. T. & T. uses exactly the same easy card system that is being used by hundreds of companies having fewer than 25 employees! It is simple enough to be handled by a check-mark on a card each pay day.

**Plenty of help available.** Although this is *your* plan when you put it into effect, the Treasury Department is ready and willing to give you all kinds of help. Local civilian committees in 48 States are set up to have experienced men work with you just as much as you want them to, and no more.

Truly, about all you have to do is to indicate your willingness to get your organization started. We will supply most of the necessary material, and no end of help.

**The first step is to take a closer look.** Sending in the coupon in no way obligates you to install the Plan. It will simply give you a chance to scrutinize the available material and see what other companies are already doing. It will bring you samples of literature explaining the benefits to employees and describing the various denominations of Defense Savings Bonds that can be purchased through the Plan.

Sending the coupon does nothing more than signify that you are anxious to do *something* to help keep your people off relief when defense production sloughs off; *something* to enable *all* wage earners to participate in financing Defense; *something* to provide tomorrow's buying power for your products; *something* to get money *right now* for guns and tanks and planes and ships.

France left it to "hit-or-miss" . . . and *missed*. Now is the time for *you* to act! Mail the coupon or write Treasury Department, Section A, 709 Twelfth St. NW., Washington, D. C.



**FREE - NO OBLIGATION**

Treasury Department, Section A,  
709 Twelfth St. NW., Washington, D. C.

Please send me the free kit of material being used by companies that have installed the Voluntary Defense Savings Pay-Roll Allotment Plan.

Name \_\_\_\_\_

Position \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

# Mill News

**BENNETTSVILLE, S. C.**—The People's Warehouse Co. and 935 bales of cotton were destroyed here by fire December 9th. The cotton was fully covered by insurance.

**HEMP, N. C.**—The Pinehurst Silk Mills, Inc., have changed their name to Pinehurst Cloth Mills, Inc., the change being dictated by the recent elimination of silk as a source of supply.

**MILSTEAD, GA.**—At the Milstead plant of Callaway Mills, contract has been let to Newman Construction Co., LaGrange, for construction of additions to the mill building. The plant operates 18,816 spindles and 217 looms on the manufacture of ducks and filter cloths.

**ELLIJAY, GA.**—J. & C. Cottons, a partnership, is operating 4,800 spindles on 7s to 12s yarns in heavy plies. They specialize in yarns for tufted bedspreads, manufactured by the parent company. J. K. McCuthen is manager, and C. M. Moore is superintendent.

**VILLA RICA, GA.**—Villa Rica Mills, Inc., manufacturers of men's hose and yarns, will begin the manufacture of pants and shirts about the first of the year, according to reports. The company's new branch will be housed in

the former Rica-Tex Mills building, which has been remodeled and equipped at a cost of around \$32,000.

**SWANNANOA, N. C.**—Beacon Athletic Association, Inc., is a new corporation to provide the facilities for and to promote the physical and social well-being of the employees of the Beacon Mfg. Co. A non-stock corporation. Incorporators: Earl Bailey, Fred Blanchette, J. O. Buchanan, and others, of Swannanoa.

**LAGRANGE, GA.**—To be used immediately for new school facilities and improvement of existing equipment, Fuller E. Callaway, Jr., president of the Callaway Mills of this city, has announced a donation of \$190,000 to the City Board of Education. Authorized by the company's board of directors, the money will provide modern buildings and improve equipment for the children of the Callaway Mills' operatives living in southwest LaGrange.

**ANDERSON, S. C.**—Announcement was made December 4th by the Advisory Board of the Salvation Army that the Lad Lassie Mills, a unit of the Gossett chain in Anderson County, had been awarded a cup given annually by the board to the textile plant in the county raising the greatest sum in the annual campaign of the Salvation Army.

**GREENVILLE, S. C.**—Ninety-three houses in the Judson Mills community owned by the plant have been placed on sale as the company moves into the final phase of its plan to dispose of its houses to its operatives. Prices range from \$825 to \$1,050 for a residence and the Alester G. Furman Co., realty, textile stocks and bonds, is handling the sale of the property.

**HIGH POINT, N. C.**—A charter has been issued to Goodyear Corp. of High Point, authorized to deal in hosiery, underwear and knit goods, under an authorized capital stock of \$100,000, part of which was subscribed by Horace S. Haworth, Owen Reese, and Margaret L. Wooten, all of High Point.

**GREENSBORO, N. C.**—The entire capital stock of the Pomona Mfg. Co., manufacturers of cotton cloth and yarns, has been purchased by Wm. Ockrant and J. Robert Orton, Cincinnati, Ohio, industrialists. The stock was formerly held by the Jefferson Standard Life Insurance Co., of Greensboro. It is reported that there will be no change in operating personnel.

Orton & Ockrant operate a small yarn mill at Covington, Tenn.

Under the new plan of operation, the corporate officers will be William Ockrant, president; Myles A. Bearden, who will continue as vice-president and general manager; J. Robert Orton, treasurer; and Robert H. Frazier, Greensboro attorney, secretary and resident counsel. These officers, together with C. Elmer Leak and Edward M. Brown, Cincinnati, constitute the board of directors.

## FAIR SERVICE TO ALL!

Since 1866 our policy of Fair Service to All has been the bulwark of our business. It has withstood the test of two major wars and several depressions. Today our customers have confidence in our ability to protect their interests . . . especially through the present emergency. They have confidence in the high quality of our textile starches . . . corn, potato, wheat . . . which reflect the craftsman's art in skillfully converting the best materials the world affords. This customer confidence is one of our most valuable assets. We shall do all in our power to preserve and strengthen it.

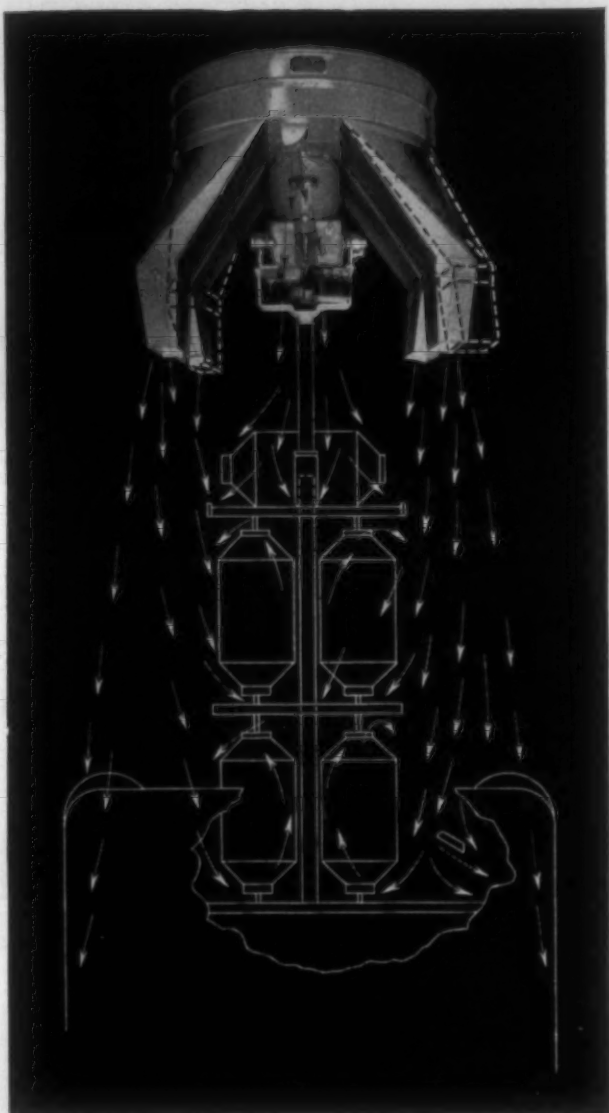


**STEIN, HALL & COMPANY, INC.**

285 Madison Ave.  
NEW YORK

1011 Johnson Bldg.  
CHARLOTTE, N. C.





## Where do you want the Air?

On all new Parks Automatic Traveling Cleaners air outlets are adjustable.

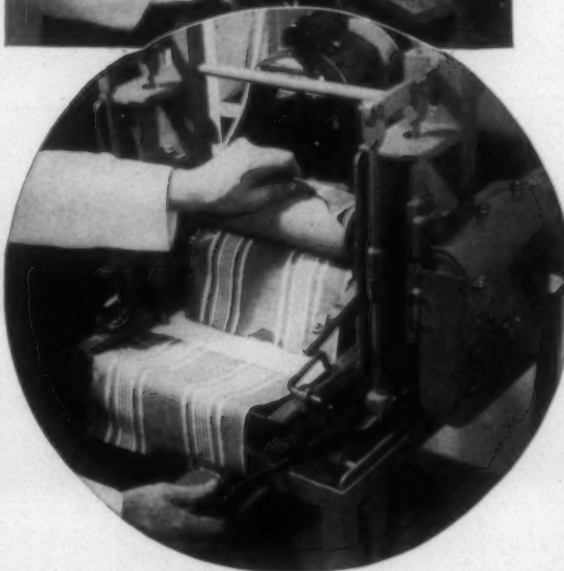
The volume of air is adjustable. Where it is delivered is also adjustable. Both air streams may be "spotted"—inward—directly downward—or outward. One side may be spotted independently of the other and in a different direction.

This improvement makes Parks Traveling Cleaners more flexible—and still more efficient.

## Parks-Cramer Company

Fitchburg, Mass.    Boston, Mass.    Charlotte, N. C.

## New Textile Laboratory AT YOUR SERVICE!



THESE are photographs of the interior of the modern, efficient new laboratory which the Corn Products Sales Company has established at Greenville, S. C., for testing and experimental work on textiles.

You are cordially invited to call on the resources of this laboratory! Our technicians will help you work out any WARP SIZING, FINISHING or other textile problems.



## CORN PRODUCTS SALES COMPANY

17 BATTERY PLACE, NEW YORK, N. Y.

Textile Offices: Greenville, S. C. • Greensboro, N. C. • Atlanta, Ga.  
Spartanburg, S. C. • Birmingham, Ala. • Boston, Mass.



# Personal News

J. H. Adams has resigned as overseer of the cloth room at the Columbus, Ga., plant of the Bibb Mfg. Co.

Geo. A. Dyson is now overseer of the cloth room at Sanford (N. C.) Cotton Mills.

Bradley Fields has been promoted to assistant overseer of slashing at Bibb Mfg. Co., Columbus, Ga., mill.

A. S. Griffith has resigned as superintendent of the Jasper, Ala., unit of Alabama Mills.

C. F. Nease is now overseer of the cloth room at the Columbus, Ga., plant of the Bibb Mfg. Co.

F. D. Forsyth has been named superintendent of the Jasper, Ala., unit of Alabama Mills.

Fernie Hurston has been promoted to the position of assistant overseer of the cloth room at the Bibb Mfg. Co., Columbus, Ga., plant.

G. W. Hagans has been promoted from overseer of carding to assistant superintendent of the P. H. Hanes Knitting Co., Hanes, N. C.

R. H. Dancy, formerly of Green River Mills, Tuxedo, N. C., is now superintendent of carding at Hampton Spinning Mills, Clover, S. C.

Karl G. Hunt, a member of the Dallas Cotton Exchange for 20 years, has been elected assistant secretary of the exchange.

L. E. Shoemaker has been promoted from second hand to overseer of carding on first shift at the Nos. 3 and 4 plants of P. H. Hanes Knitting Co., Hanes, N. C.

Clyde Dunn is now overseer of carding and spinning at Winton Mills, No. 2, Fort Valley, Ga. He was formerly with the Werthan Bag Corp., Nashville, Tenn.

Richard Bryant has been promoted and transferred to overseer of second shift carding at No. 4 plant, P. H. Hanes Knitting Co., Hanes, N. C.

R. L. Daley has been promoted to the position of assistant superintendent and overseer of carding and spinning at the Sanford (N. C.) Cotton Mills.

Arthur Cottingham, son of A. H. Cottingham, general manager of the Victor-Monaghan Co., Greenville, S. C., is on duty as a lieutenant in the U. S. Coast Artillery in Hawaii.

J. B. Cook has been promoted to the position of overseer of the slashing department at the Columbus, Ga., plant of the Bibb Mfg. Co.

Lindsay Miller has been promoted from fixer to second hand of No. 4 carding, third shift, P. H. Hanes Knitting Co., Hanes, N. C.

T. Henry Wood, general manager and superintendent of the Oconee Mills, Westminster, S. C., has been elected mayor of Westminster.

Joe F. Chalmers, general superintendent of the Mathews Cotton Mill, Greenwood, S. C., has also been given a similar position with the Greenwood Cotton Mills.

Henry McKelvie, agent for the Merrimack Mfg. Co., Huntsville, Ala., has been elected vice-president of the Huntsville Chamber of Commerce.

A. T. Greene, secretary and assistant treasurer of the Drayton Mills, Spartanburg, S. C., has been appointed local chairman of the National Committee of Conservation of Manpower in Defense Industries.

Frank L. Byrd has resigned as research engineer for the Springs Cotton Mills, of South Carolina, and has accepted the position of lubrication engineer for Riverside & Dan River Cotton Mills, Danville, Va.

W. A. Moorhead, general manager of the Joanna Textile Mills, Goldville, S. C., and retiring president of the Clinton, S. C., Kiwanis Club, was guest speaker at the Woodruff (S. C.) Rotary Club recently.

W. M. Ratliffe, Jr., president of the Guadalupe Valley Cotton Mills, Cuero, Tex., has taken over the active management of the plant, following the death of R. B. McMahon, manager for many years.

Frank E. Rowe, Jr., formerly chief technician of the Springs Cotton Mills of South Carolina, is chief maintenance engineer and technical superintendent of the Riverside & Dan River Cotton Mills, Danville, Va.

Alex Davis, an executive of the Saco-Lowell Shops, Charlotte, N. C., has left for Saco, Maine, and Washington, D. C., where he will take up duties for the Government in the war effort.

R. E. Smith, for 25 years office manager of the Fairfax, Ala., plant of the West Point Mfg. Co., was honored with a banquet recently, in recognition of his service. Sponsors

"You Can Count on WAK Counters"  
They are Rugged, Accurate, Dependable

Write—Phone—Wire

**WAK** INCORPORATED  
CHARLOTTE, N. C.

## HOUGHTON WOOLTOPS

*Prompt Shipment All Grades on Short Notice*

Suitable for Blends with Rayon or Cotton

**HOUGHTON WOOL COMPANY**

253 Summer St.

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*Write or Phone Our Southern Representative*

**JAMES E. TAYLOR**, Phone 3-3892 Charlotte, N. C.

## RUBBER COVERED ROLLS

All Types for Textile Finishing

Rubber Tank Lining

**Carolina Rubber Hose Co.**

TELEPHONE 1108

SALISBURY, N. C.

**CLINTON**

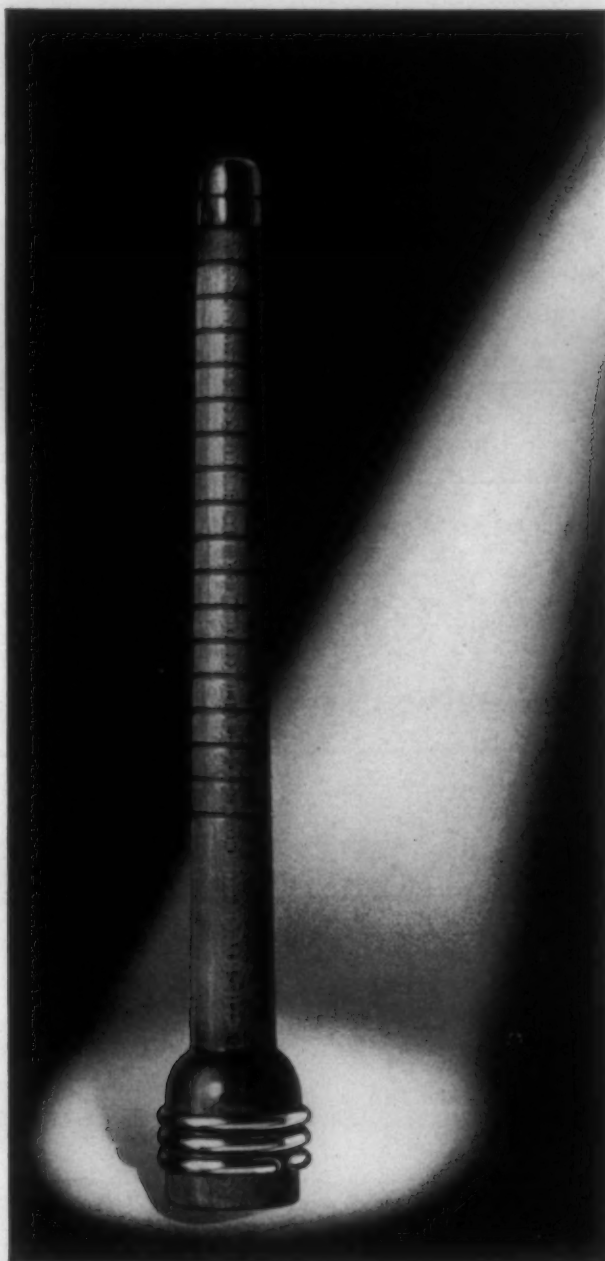
## STARCHES

*For All  
Textile Purposes*

UNIFORMITY  
QUALITY SERVICE

**CLINTON COMPANY**

CLINTON, IOWA



## PRECISION BOBBINS

Today's spotlight is on precision. Your PRECISION BOBBINS are gauged for accuracy. Butts no smaller than 1.200", no larger than 1.215". Two dangers eliminated here—unnecessary mistransfers and shuttle spring breakage.

Precision Bobbins Are Made By

**NEW ENGLAND  
BOBBIN & SHUTTLE CO.**

George M. Hambleton, Gen. Mgr.

NASHUA, NEW HAMPSHIRE

of the banquet were the members of the office force, overseers, shipping and billing departments.

James Edward Hayes has retired from the position as head of the accounting department of Gossett Mills, of South Carolina, following 35 years of active service with the organization. His headquarters were at Anderson, S. C.

### Hunter Marshall Honored By Charlotte Kiwanis Club

Hunter Marshall, secretary of the North Carolina Cotton Manufacturers' Association, and for the past 20 years secretary of the Charlotte, N. C., Kiwanis Club, was honored by the club recently on his retirement from the secretarial position.

At the meeting, Mr. Marshall was presented with two sterling silver dishes, suitably engraved, as a token of the club's appreciation of his services.

### Anderson Heads South-Central Textile Chemists

Chattanooga, Tenn.—Jack Anderson, of the Peerless Woolen Mills, Rossville, Ga., was elected chairman of the South Central Section of the American Association of Textile Chemists and Colorists at a meeting here.

He succeeds Fletcher L. Kibler, of the United Hosiery Mills Corp., Chattanooga. Other new officers selected are:

William J. Harrison, Trion Co., Trion, Ga., vice-chairman; Dan A. Torrence Co., Inc., Chattanooga, secretary; Joe T. Bohannon, American Aniline Products, Inc., Chattanooga, treasurer; J. D. Mosheim, Crystal Springs Bleachery, Chickamauga, Ga., counselor to National Association; W. E. Hadley, Standard-Coosa-Thatcher Co., Chattanooga, national nominating committee.

Sectional committee, W. S. McNab, Quaker City Chemical Co., Knoxville, Tenn.; Nester Grotelueschen, Magnet Mills, Inc., Clinton, Tenn.; Frank Myers, Geigy Co., Inc., Chattanooga; H. A. Rodgers, National Aniline & Chemical Co., Chattanooga, and Homer Wheelchel, Central Franklin Process Co., Chattanooga.

The report of the nominating committee, as presented by Chairman W. E. Hadley, was unanimously accepted.

### Emmons Appoints Polak Brazilian Agent

The Emmons Loom Harness Co., of Lawrence, Mass., and Charlotte, N. C., announces the appointment of A. Polak as Emmons agent in Brazil.

He will handle Emmons Certified Steel Heddles, heddle frames, reeds and pickers.

Mr. Polak's address is Caixa Postal, 362 Rio de Janeiro, Brazil.

### Elect Robert McCamy Southeastern Area Chairman of A.A.T.C.C.

Atlanta, Ga.—Robert J. McCamy, superintendent of dyeing of Pepperell Mfg. Co., Lindale, Ga., was elected chairman of the Southeastern Section of the American Association of Textile Chemists and Colorists at the sec-

tion's annual meeting here. He succeeds as chairman Perlin N. Collier, vice-president and director of research of Callaway Mills, LaGrange, Ga. Mr. Collier was made national councilor for the section, succeeding Robert W. Philip, editor of *Cotton*, Atlanta.

Russell Gill, vice-president, Southern Sizing Co., Atlanta, was made vice-chairman of the section, succeeding L. L. Bamberger, of Lanett Bleachery & Dye Works, Lanett, Ala.

T. A. Davis, superintendent of dyeing and bleaching, Muscogee Mfg. Co., Columbus, Ga., was made treasurer, succeeding A. R. Macormac, of Alabama Polytechnic Institute. Lee L. Baker, of Tesco Products Co., Atlanta, Ga., was made secretary, succeeding Curt Mueller, superintendent of dyeing and polishing, Bibb Mfg. Co., Macon, Ga.

Four members were re-elected to the sectional committee: J. W. Richardson, superintendent of bleaching, Russell Mfg. Co., Alexander City, Ala.; John P. Harrison, superintendent, Muscogee Mfg. Co., Columbus, Ga.; M. T. Johnson, superintendent of dyeing, Callaway Mills, LaGrange, Ga., and George E. Missbach, F. H. Ross & Co., Atlanta, Ga.

The following four new members were named to the committee: Paul M. McLarty, Thomaston Bleachery, Thomaston, Ga.; L. E. Whittelsey, Southern Dyestuff Corp., Macon, Ga.; Walter H. Jackson, National Aniline & Chemical Co., Columbus, Ga.; and George H. Small, National Oil Products Co., Atlanta, Ga.

### Mill Executives View Fire Prevention Film

About 50 factory executives and officials from mills in the Charlotte, N. C., area attended the showing of motion pictures, depicting fire prevention in industry, recently at Hotel Charlotte. The films were sponsored by the Factory Mutual Insurance Co. and presented by their local representatives, H. C. Wolfe and O. F. Davenport.

### 1,352,199 Bales Cotton Covered By Govt. Loan

Washington, D. C.—The Department of Agriculture reports that the Commodity Credit Corp. had made 724,385 loans on 1,352,199 bales of 1941 crop cotton through December 6, 1941. Of the total, 82,094 loans on 282,219 bales were made by co-operative associations. At the same time last year, loans had been made on approximately 2,300,000 bales.

### Condemnation Proceedings Against Mill Dismissed

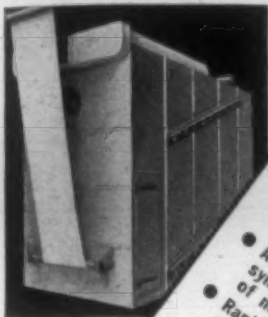
Spray, N. C.—An order dismissing condemnation proceedings brought by Asheville Housing Authority against Spray Cotton Mills was signed in Superior Court at Asheville, N. C., by Judge Allen Gwyn.

The move was made by the housing authority in order that the condemnation might be brought under an older statute which has been tested by Supreme Court and upheld on a number of occasions, rather than on the newer 1935 statute under which the first petition was brought, it is understood.

The proceedings were filed to gain possession of certain lands considered necessary by the authority for culmina-



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tion of a housing project here. Respondent mill company resisted the condemnation and brought a demurrer, which was overruled in Superior Court. This decision was appealed by the mill and preparations were being made to take the appeal to the Supreme Court when the step was taken by the authority in an effort to expedite the condemnation.

## OBITUARY

JOHN H. ROGERS

Griffin, Ga.—Funeral services were held recently for John H. Rogers, 64, retired textile executive and former State legislator. He was associated with cotton mills at Hope Mills, N. C., and moved to Griffin in 1915 and was secretary-treasurer of the Griffin Mfg. Co. for more than 20 years. He was secretary of the Griffin and Spalding County Chamber of Commerce for many years.

BENJAMIN RUSSELL

Alexander City, Ala.—Benjamin Russell, who started a one-room textile mill here 40 years ago and built it into one of the South's largest industries, died unexpectedly December 16th.

He was 60 and had been considered only slightly ill.

Russell was owner of the Russell Mfg. Co., with six textile mills here; of the Russell Foundry Co., the Alexander City Outlook, a bank, a laundry, a lumber mill, a bakery, and most of the business buildings here.

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# TEXTILE BULLETIN

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## At War

We are at war.

That means more than has yet been realized.

It means more than sending men and guns and ships and aircraft across oceans.

It means sacrifices at home. It means more control over our lives, more work, probably less profits and much higher taxes.

It means lost markets, denials of raw materials, the shutdown of many non-essential industries and loss, or change, of jobs for many workers.

It means regimentation for many and possibly a rationing of foodstuffs and a shortage of clothing.

Even though it means all of these things and many more, we could not and would not, under the circumstances, be other than at war.

We would rather die upon our feet than live upon our knees.

Our army, our navy and our air force are doing the best they can. Mistakes will be made, and may have already been made, but this is not the time for criticism, especially criticism based upon guesses and suppositions.

There is unity in Congress and among the people of the United States and it should not be undermined by whisperings or by charges based upon rumors.

Whatever we may have said about Franklin

D. Roosevelt, in the past, he is our President and is the Commander of our armed forces and to him we pledge allegiance for the duration.

The textile industry is charged with producing an ample supply of such fabrics as are needed by our soldiers and the soldiers of the countries who fight by our side, and the production is going to be a much greater task than is now realized.

There are millions of men in China, India, Russia and other countries who are willing to fight, if they can be given arms and equipment, and we must produce uniforms and other fabrics for them as well as for our own soldiers.

It is going to be a gigantic task for the textile industry but it must be met to the best of our ability.

It will be better to work on Sunday than to see those, willing to fight, idle for lack of equipment.

This is no time to argue that excessive speeds will mean excessive wear upon textile machinery any more than for a soldier to argue that excessive firing will mean depreciation of guns.

War was not the desire of the people of the United States until it became necessary, but we are at war and every citizen must do those things which are his assignment.

Some will take up arms or take seats in aircraft and risk their lives in combat with the enemy.

Some will produce guns and planes and warships, while others will raise the foods needed by our fighting men.

Our task is to produce fabrics and we should do that job with just as much reckless abandon as those who fight.

Every extra pound of yarn spun and every extra yard of cloth woven means that much extra equipment for our soldiers and those of our allies.

Those, who operate cards or spinning frames or looms, should regard themselves as doing their bit for the country which gave them birth and in which they have enjoyed liberty.

They should realize that every extra effort is a blow against Hitler, and against those who seek to dominate and enslave the world and to take our freedom from us.

Death will come to many of our young men as they go abroad to meet the forces of evil.

That is their assignment and they will make the supreme sacrifice willingly.

The assignment of the textile industry is to produce fabrics and we shall do more than is expected of us.



## Our Bill of Rights

President Franklin D. Roosevelt set aside December 15th as "Bill of Rights Day" and asked that the people of this country pay homage to the original ten amendments to the Constitution of the United States.

That such a suggestion has come from Franklin D. Roosevelt is indeed remarkable, for he has done more than any other man who has ever lived to destroy and nullify the most important articles of our "Bill of Rights."

The Constitution was signed at Philadelphia on September 17th, 1887, but the people refused to ratify until ten amendments known as the Bill of Rights were added and the amendments most generally demanded were included.

ARTICLE IX—The enumeration in the Constitution of certain rights shall not be construed to deny or disparage others retained by the people.

ARTICLE X—The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.

Franklin D. Roosevelt asked Americans to honor the "Bill of Rights" on December 15th, but only a short time ago he demanded the destruction of Articles 9 and 10 and openly stated that in order to accomplish that purpose he would pack the United States Supreme Court with men willing to destroy the reserved powers of the States.

## Dissenting Opinion

(By Benjamin F. Fairless, one of the three members of the Board of Arbitration in the "captive" coal fine dispute.)

"I dissent from the decision of the majority of this Board of Arbitration, appointed by the President of the United States.

"That decision imposes a closed shop on the so-called 'captive' coal mine operators, who are parties to this arbitration. Their operations have heretofore always been conducted on the open shop principle over a long period of years. There is no possible justification for a change in this basic labor relationship at a time of national crisis.

"That decision further imposes an unregulated labor monopoly upon the entire bituminous coal industry.

"That decision does not confer one single benefit on the workers in the 'captive' coal mines. Their wages, hours, or working conditions are in no way improved. The only beneficiary is the already powerful United Mine Workers of America whose membership already embraces about 95 per cent of the workers in the bituminous coal industry.

"That decision violates the fundamental right of the American worker to a job regardless of membership or non-membership in any organization.

"That decision violates the freedom of choice by the American worker of his own representative in collective bargaining, a freedom which the Congress has taken pains to protect.

"That decision runs counter to the statement publicly made by President Roosevelt on November 17, 1941, when he said:

"I tell you frankly that the government of the United States will not order, nor will Congress pass legislation, ordering a so-called closed shop. It is true that by agreement between employers and employees in many parts of various industry the closed shop is now in operation. This is a result of the legal collective bargaining and not of government compulsion on employers or employees. It is also true that 95 per cent or more of the employees in these particular mines belong to the United Mine Workers Union. The government will never compel this 5 per cent to join the union by government decree. That would be too much like the Hitler method toward labor."

"The United Mine Workers of America do not need the closed shop in the 'captive' coal mines for their own security. The present dominant position of that union has been obtained under open shop conditions.

"In view of the constitution of this Board of Arbitration and the appointment of its members by the President of the United States, that decision is bound to be considered as the imposition of the closed shop by government action. In my opinion, the Congress in these days of national emergency should alone undertake to change a long-established open shop into a closed shop, or a closed shop into an open shop.

"Furthermore, deliberate and wise action on a complicated and controversial issue cannot be expected when all of us are, or should be, straining every effort to attain our paramount objective, namely, complete national security and the destruction of Hitlerism.

## R. R. Ray

The death of R. R. Ray, of McAdenville, N. C., marked the passing at the age of 89 of a man who had long been a prominent figure in the textile industry and in the political life of North Carolina.

In 1882 he entered the employment of the McAden Mills as bookkeeper and later became secretary and treasurer of those mills.

For many years he was president of the Gaston County Textile Manufacturers' Association, served as president of the Cotton Manufacturers' Association of North Carolina and as a member of the Board of Directors of the American Cotton Manufacturers' Association.



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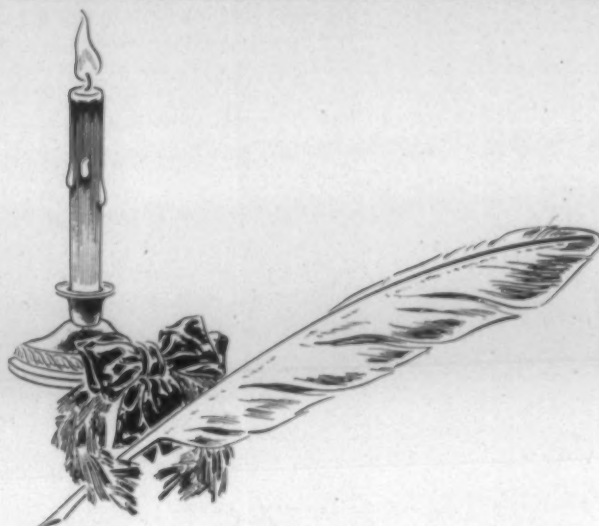
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who has lived well, laughed often, and loved much—said a certain man whom the world calls wise.

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Together we labor, sweat, strive,—You and we—plodding the pathway together, in the turbulent parade of living—

Seeking SUCCESS!

Many times success is with us, and we do not even know it,—for it lies in the friendships that come from the daily association with others—in the human contacts with the good people who are our customers, and our friends.

And so, to YOU, our good friend,—we wish SUCCESS this Christmas season, and during the year that is coming.

May you prosper! May you—

*"live well, laugh often, and love much!"*

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1942 • A. D.

# DYEING AND FINISHING

## Properties of Chemicals That Make Them Valuable for Textile Processing

By D. P. Quinn

### Part VI Printing Assistants

(See Part V for initial article on Printing Assistants, which discussed some of the chief acids and their value as printing assistants.—Editor.)

#### Nitric Acid— $\text{HNO}_3$

This fuming, strongly corrosive oxidizing acid is not used to any great extent in the actual production processes in a print works. Its principal use is by the engraving department for etching the pattern onto the copper print rollers.

#### Oxalic Acid— $\text{C}_2\text{H}_2\text{O}_4\text{H}_2\text{O}$

This white crystalline compound is occasionally employed in dilute solution by the soaper room to remove iron stains. Oxalic acid is used in preference to the mineral acids for removal of such stains because the oxalate of the offending metals is more soluble than the chlorides. Actually, in plant practice, since the amounts of iron are relatively small, the results obtained by dissolving the iron with the cheaper acid, hydrochloric, show that oxalic acid offers no appreciable advantage. Regardless of which acid is used, it must be completely removed or neutralized to prevent subsequent tendering of the goods.

#### Stearic Acid— $\text{C}_{17}\text{H}_{35}\text{COOH}$ —284 M. W.

This white crystalline solid is used as a lubricant in starch pastes. 14 to 18 ounces of stearic acid are added to 100 gallons of the starch mixture, which usually includes a certain amount of soda ash. As the cooking of the starches proceeds, the stearic acid reacts with the soda ash to form a soap which acts as the lubricant in the paste. It has been noted that the starch paste is slightly smoother and freer flowing when this soap is formed within the cooking starch mix than when a corresponding amount of ordinary commercial soap (sodium stearate or oleate) is added to the paste either before or after cooking. This difference is probably due to the better lubrication obtained by a more thorough dispersion of the soap when it is formed within the mix, than when

the ordinary soap is added.

#### Aniline— $\text{C}_6\text{H}_5\text{NH}_2$

This highly poisonous oil is the base of the very cheap and fast Aniline Black. A formula for its use is given in the paragraph listing the uses of Hydrochloric Acid.\*

Aniline Oil should never be handled carelessly either by spilling upon the skin or by excessive inhalation of its fumes. When absorbed into the human blood stream, it causes extreme cyanosis or "blueness" which in not uncommon instances has resulted in death for the victim.

A special, well ventilated shed should be installed in the color shop for handling and preparing of the Aniline Black paste. A regular kerosene oil pump system is convenient and safe for measuring aniline.

#### Sodium Chlorate

This strong oxidizing salt is used in the preparation of aniline and logwood black printing pastes. As mentioned in the above discussion of Hydrochloric Acid—an excess of sodium chlorate in the aniline black print paste will cause disastrous tendering of the print fabric and also cause rapid destruction of the back gray. Sodium chlorate is preferred to the potassium salt because of its greater solubility and cheapness.

#### Sodium Bichromate— $\text{Na}_2\text{Cr}_2\text{O}_7 \cdot 2\text{H}_2\text{O}$

This orange colored crystalline deliquescent is a strong oxidizing agent. It is used in the preparation of print pastes of the Indigosols that are difficult to oxidize.

For example:

- 1.8 grams Indigosol Blue 04B
- 2 grams Urea
- 3 oz. Print gum
- 26 cc. Hot water
- 3.5 cc. Sodium Bichrome Solution (:1)
- 1.8 cc. Ammonium Chloride (1:4)

\*See Nov. 15th, Textile Bulletin, Page 44-D.

Print, then acid age 5 minutes and finish as usual.

Sodium Bichromate is preferred to the potassium salt because it is more soluble and cheaper.

**Ammonium Chloride**— $\text{NH}_4\text{Cl}$ —Sal Ammoniac

This white crystalline powder is used in print pastes of colors which require an acid medium during ageing and development. An example of its use is listed above in the paragraph describing the uses of Sodium Bichromate.

**Ammonium Sulphocyanide**— $\text{NH}_4\text{CNS}$

This colorless crystalline compound is used in instances similar to those requiring ammonium chloride. It is used in printing several of the Indigosols. Its value is due to its property of decomposing at ager temperatures to yield an acid. Sulphocyanides are used to destroy traces of copper that would have an injurious catalytic effect on the dyestuff.

**Potassium Ferrocyanide**— $\text{K}_4\text{FeCN}_6 \cdot 3\text{H}_2\text{O}$ —Yellow Prussiate of Potash

Prussiates are used in the production of Aniline Black Paste.

**Sodium Chromate**— $\text{Na}_2\text{CrO}_4$

This yellow colored powder is used in the preparation of print pastes of several of the Indigosols that oxidize fairly easily and consequently would be oxidized prematurely should the Bichromate be used. Colors that become oxidized prematurely, that is, while still in the print paste preparation and prior to printing, are not fast to washing.

An example of the use:

1.8 gram Indigosol Green IBA

2 grams Urea

26 cc. Hot water

3 oz. Print gum

1.8 cc. neutral Sodium Chromate Solution (1:1)

Print, acid age and finish as any other print.

Sodium Chromate is used to destroy or to eliminate the possibility of contamination of a print paste by any reducing agent that would affect the dyestuff.

To avoid having to carry another chemical on the inventory—a stock solution of neutral Sodium Chromate can be prepared by neutralizing Sodium Bichromate with a solution of Sodium Hydroxide. The end point of such a neutralization reaction is readily determined by spot plate testing with phenolphthalein as an indicator.

**Sodium Formaldehyde Sulphonate**

This product is marketed under several brand names such as Formopon, Rongolite, etc. This reducing agent is used for printing vat colors. It also is widely used for discharge printing of developed, direct and aftertreated direct colors.

A satisfactory discharge print paste will contain from  $\frac{3}{4}$  to  $1\frac{1}{4}$  lbs. Formopon per gallon. Its use in a vat printing pastes is listed above in the discussion of Soda Ash. The value of this agent is due to its property of becoming reactive only at the elevated temperature found in a steam ager, whereas Sodium Hydrosulphite is reactive immediately upon dissolving, even in cold water.

**Sodium Hydrosulphite**— $\text{Na}_2\text{S}_2\text{O}_4$

This white powder is the most common reducing agent employed in the dyeing of textiles. It is sometimes used in printing "pre-reduced" vat colors. But this method of

printing vats is now practically obsolete. Now that pigments are displacing many colors, especially expensive vats and vat derivatives, hydrosulphite has lost most of its importance in the print works.

**Glycerine**— $\text{C}_3\text{H}_5(\text{OH})_3$

This thick colorless or yellowish sweet liquid is used as a hygroscopic agent in print pastes of vats. Because of its hygroscopic properties, the addition of glycerine to the print pastes will increase the color yield and uniformity of almost any color that is later to be either acid or steam aged. For example, occasionally Indigosol prints show poor color yield and unevenness after ageing. Such goods are then aged a second or even a third time. Investigation has shown such faults are due to the lack of sufficient moisture in the steam that is being fed into the ager. In such cases, the addition of glycerine and a trace of copper sulphate to act as a catalyst will yield much fuller prints than obtained in the first instance.

**Soda Ash**— $\text{Na}_2\text{CO}_3$ —Sodium Carbonate

This mild alkali finds its greatest use in the printing of vat colors. It is used because of its stabilizing and solubilizing action on the leuco base of the vat.

An example of its use in preparing a vat printing paste:

60-70 lbs. Soda Ash

70-80 lbs. Corn Starch

35-40 lbs. Tapioca Starch

4- 4 Gallons Glycerine

12-16 oz. Stearic Acid

1- 1 Gallon Turpentine

100 Gallons

Cook in steam kettle two hours.

Cool and add

For a reduction paste—30- 40 lbs. Formopon

For a standard paste—80-100 lbs. Formopon

Incidentally the strength of vat prints is expressed on a volume or rather a dilution basis. Strength is designated as "Light" or "Weak." For example, 32 Light or Weak vat print color pastes is prepared by adding to

1 gallon of vat color

10 gallons of standard paste

22 gallons of reduction paste.

Soda Ash is used in any case where a mild alkaline medium is required or as a neutralizing agent where the gaseous carbon dioxide formed will not interfere with the desired result.

**Sodium Acetate**— $\text{CH}_3\text{COOH}$

This crystalline compound is used for neutralization of acid whenever soda ash is unsuitable because of the formation of carbon dioxide. Thus its most important use is in neutralizing or buffering the excess Hydrochloric Acid used in diazotizing Fast Color Bases.

**Sodium Nitrite**— $\text{NaNO}_2$

This colorless crystalline compound is used to diazotize the Fast Color Bases. The action of Hydrochloric Acid on Sodium Nitrite furnishes a cheap and easily handled source of Nitrous Acid.

**Starches**

Many different starches are used or have been tried for printing. No single starch possesses all the qualities



of a satisfactory printing medium. For example, corn starch alone yields a paste which gives good color value or color return, but which jels, has poor flow and will not print small designs or fine lines. Tapioca, on the other extreme (disregarding its cost and present scarcity), yields a paste whose flow is too long and stringy "like taffy candy." Sago starch paste is difficult to remove by washing from the printed cloth. Sodium Alginate, although more expensive, is easily removed. Thus a mixture of starches, either ready mixed or plant prepared, is always necessary in order to obtain a satisfactory paste. A mixture may contain various combinations of corn, wheat, Irish or sweet potato, tapioca, sago, sodium alginate and modified starches. Corn or modified corn is the principal ingredient of most of the mixtures. Finally, the starch selected depends upon the availability, working properties, price and the ease with which it is later removed from the printed cloth. It is also an advantage to select a medium that can be used for several types of colors that are printed. Labor and storage costs are thereby reduced. The color yield from the print paste is very important. The higher the total solids content of the cooked starch paste, the poorer is the color yield or strength of the print. In extreme examples, a difference of 50 to 150 per cent color yield has been noted. It is acknowledged, however, that starch manufacturers have eliminated most of these wide differences by recommending to the printer the mixture proper for his particular type of work. An investigation, however routine, by the works laboratory of the starches for color yield, cost and stability, will not be effort wasted. Even a 15 per cent reduction in color cost would be a considerable savings.

A paste satisfactory for Rapidogens and Indigosols may be prepared:

- 70-20 lbs. Corn Starch
- 24-20 lbs. Tapioca Starch
- 1- 1 lbs. Stearic Acid Flakes
- 1- 1 lbs. Gallon Lubricating Mineral Oil

100 Gallons

Start cold, cook 1 hour, agitate both while cooking and cooling.

It is claimed that a smooth paste results when heating or cooking is accomplished by piping live steam directly into the mixture.

The paste is cooled by flowing cold water through the kettle jacket. A much more efficient and quicker cooling is obtained by use of ordinary commercial ice cream freezer units. One unit will cool 15 gallons of hot paste from 180° F. to 40° F. in 10-15 minutes. Such refrigerator systems, besides, furnish a supply of ice water and cold brine that can be used in preparation and storage of the Fast Color Base or Salt Pastes.

#### Machine Oil

A medium weight oil is used as a lubricant to improve the flow or consistency of a starch paste.

#### Steam Distilled Pine Oil

Pine Oil is sometimes added to a print paste to produce a smooth, freer flowing print paste. Pine oil is now finding much wider use in printing oil dispersions of pigment colors.

Castor Oil—This familiar oil is also used in printing dispersed pigments.

#### Petroleum Products

##### Kerosene

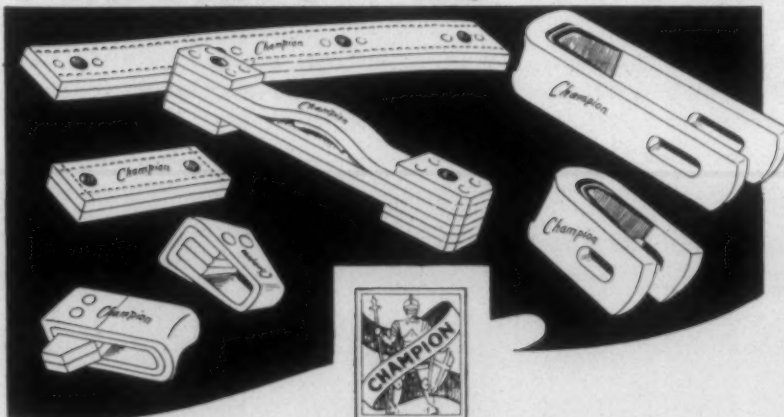
In printing a multi-color pattern, quite often one color tends to "build up" on the print roll and doctor blade and also to carry over into the next color box. This tendency is more often displayed by pigment colors printed alongside Fast Color Bases or Salts. The addition of a small amount of kerosene sometimes helps to eliminate this fault.

Petroleum Ethers—Various ethers such as "Solveso No. 2" are now consumed in enormous quantities for printing dispersions of pigment colors.

#### Cellosolve

This thick colorless oil is an excellent solvent for any dry dye that is difficult to dissolve.

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BK-641

#### Diethylene Glycol

Used as a solvent for certain colors that are difficult to dissolve.

#### Urea

This white crystalline compound is used as a solvent for almost any dry dye. It is relatively cheap and is used in large quantities for dissolving Direct, Rapidogens and Indigosol colors. A mixture of urea, furfural, and denatured alcohol is sometimes used as a substitute for the more expensive solvents.

#### Tannic Acid (Gallotannic Acid)— $C_{41}H_{10}O_{32}H_2O$

As mentioned previously in the discussion of acetic acid, Tannic Acid is added to the print paste of a basic color. It acts as a mordant on the cotton and as a precipitating agent on the color itself. Cotton has no affinity for basic dyestuffs because of the absence of reactive acid groups in the cellulose molecule. Tannic Acid supplies such groups. However, in printing, this mordanting reaction proceeds only to a small degree. The principal value of the tannic acid is that it precipitates the dye. This tannic-basic lake is fixed upon the cotton in an insoluble form by passing the printed goods through a dilute solution of antimony salts.

#### Antimony Salts— $SbF_3(NH_4)SO_4$

This crystalline compound is a double salt of ammonium sulphate and antimony flouride. The use of this product is described in this article.

#### Chromium Acetate— $Cr(C_2H_3O_2)_3$ —458 M. W.

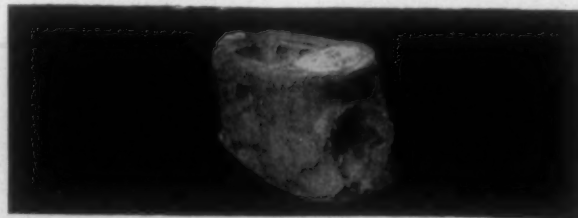
This green liquid is used for fixing chrome prints. An example (of use):

- 3.5 grams Chrome Yellow R
  - 3.5 grams Fixer CDH
  - 28 cc. Water
  - 2½ oz. Paste
  - 15 cc. Chrome Acetate
- Print and steam age.

#### Loom Picker Wears Nine Months On Three Shifts

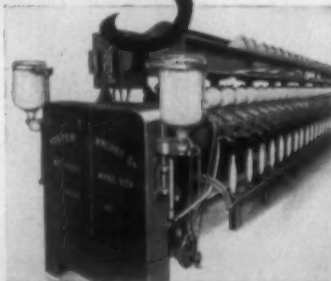
The loom picker illustrated below is reported to have run from February 15, 1941, to November 15, 1941, on an L-Model Draper loom, 90-inch, three shifts operation in a North Carolina mill, producing sheeting. This is a total of nine months.

According to the manufacturer, E. H. Jacobs Mfg. Co., the reason for the long life is the unique construction



feature of a coil, or circular plug, which may be noticed just inside the face cover of the illustrated picker, this being an unretouched photograph. The entire picker is said to be constructed of 10-ounce army duck, impregnated with white rubber. The plug consists of a tight wrapping of a single piece of duck.

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Proper conditioning — proper regain — better knitting quality. Try this easy, practical way to improve your knitting yarns. Use laboratory and mill-tested Laurel Emulsions and Softeners for conditioning and twist setting your processed or grey, carded or combed knitting yarns. Developed and backed by nearly two decades' experience with actual working problems of spinners and processors. Write for recommendations for the correct Laurel Emulsion to give you better knitting yarns.

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Warehouses: Paterson, N. J. Chattanooga, Tenn. Charlotte, N. C.



## Report By Quartermaster General On Procurement for Army

(Continued from Page 20)

man in the tropics. Procurements to date total 9,087,222 pairs at a cost of \$6,331,858.

This procurement may be broken down as follows:

	Pairs
Initial issue	2,152,972
Replacement	4,819,250
Procurements under the \$175,000,000 program	2,115,000
Total	9,087,222

It has been necessary to use the reserve in the \$175,000,000 program as stock for size purposes, as this article is extremely difficult to procure because of the shortage in duck, out of which it is manufactured.

The maintenance on this item is very high, being 200 per cent a year. In order that the soldier may have a serviceable pair of leggings at all times, the allowance will be increased to 2 per man throughout the Army as soon as stocks on hand will permit.

**Neckties:** During the year each enlisted man will receive four cotton khaki neckties and three black neckties in the United States and eight cotton khaki neckties in

(Continued on Page 40)



## THE Engineers— TIME-CUTTERS FOR PRODUCTION!

The tick of the clock is the overtone to production in a thousand avenues of industry for the daily needs of plain people as well as for the defense of a determined democracy.

Achievement of their mighty, time-pressed purpose is in the hands of the trained and disciplined minds of the Engineers.

Here, at your call, is an organization of Engineers with diversified experience in many fields of industrial and commercial endeavor. It is prepared to design, to plan, to supervise and to make contracts for construction.

INDUSTRIAL PLANTS • PLANS AND DESIGNS • POWER

LOCATION STUDIES • WATER SUPPLY AND TREATMENT



## Textile Safety Group To Study Machine Guarding

"Machine Guarding" will be the subject of study and discussion at sessions of the Spartanburg area classes in defense in safety engineering.

Classes are being held each Monday and Friday night at 7 o'clock in Spartan Mills community house. Overseers, superintendents and other textile management personnel are attending. Twenty are enrolled.

No classes will be held Christmas week. However, studies will be continued through January and February. L. L. Eaton is instructor.

M. W. Vannerson spoke on importance of eye protection in industry, recently.

He stated the annual bill for accidents in United States industry is \$600,000,000. Eye injuries account for 5.31 per cent, he said. A careful analysis of 234,338 compensable eye accidents showed an average compensation and medical expense cost of \$343 per case, Mr. Vannerson said.

## Orders Allocation Of Rayon Yarn Be Continued Indefinitely

Washington, D. C.—Donald M. Nelson, director of priorities, has signed an order continuing indefinitely supplementary order M-37-A allocating rayon yarn and Supplementary Order M-37-B designating the textile tabulating office, Bureau of Research and Statistics, OPM, to receive reports provided for in the allocation order.

Both supplementary orders would have expired at midnight Dec. 31, 1941. Indefinite continuance was decided upon because the situation caused by the shortage of silk and the use of rayon as a substitute, which made necessary the order allocating rayon, still exists. It is believed better not to have a specific termination date, as this causes uncertainty in the industry. The orders can be terminated when the situation permits.

## Textile Lines Lead In S. C. Manufactures

Greenville, S. C.—Textile products aggregating \$382,753,951 led manufactures worth \$573,607,049 turned out by South Carolina industries during the last fiscal year, according to Labor Commissioner W. Rhett Harley. Of the State's 145,889 industrial operatives, 102,342 were engaged in textile plants.

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"Textile Center of the South"

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Sales experienced also preferred.  
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"Salesman,"

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Conductors  
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ments, planned efforts have been  
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son will put the right fibre broom  
in every department.

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#### ROLLER COVERER

with 30 years' experience covering  
rolls and making aprons wants  
medium sized shop or foreman of  
large shop. On present job 14  
years. Now employed but prefer  
a change. Foreman of some of  
largest shops in South for over 20  
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Address "Roller Coverer,"  
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ener with Gravel and Zeolite.  
8 ft. x 18 ft. Pressure Water Filter.  
Priced low for immediate sale.

Graham Chemical Company,  
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#### WANTED

Just starting up the Mill and re-  
quire about twelve good weavers  
on duck—Draper looms. Apply to  
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Now employed, desires change.  
Have a record of quality, low cost  
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either or both. No charge for es-  
timate. Call today.

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POSITION WANTED as Superintendent  
or Assistant to busy textile executive.  
Managed and supervised mill having  
60,000 lbs. weekly for past 6 years. Ex-  
perienced in manufacturing and selling  
of yarns. Best references and good rea-  
sons for wanting to make change. 37  
years of age, married, two years college  
education. Write "S. W.," c/o Textile  
Bulletin.

AMERICAN, age 42, cotton manufactur-  
ing and mill engineering experience 21  
years, 2 years yarn commission selling.  
Strong on production, quality and ma-  
chinery maintenance. Strictly sober  
and open minded. Now superintendent  
but desire change. Want superintend-  
ency, carding or spinning. References  
and satisfaction guaranteed. Write  
"Cotton Manufacturing," c/o Textile  
Bulletin.

### Mill Workers To Give Day's Pay To Red Cross

Tarboro, N. C.—Rawls Howard,  
president of Runnymede Mills here,  
said that he had agreed to allow em-  
ployees of the mill to work an extra  
day Monday, December 22nd, so  
that earnings then of the 202 em-  
ployees might be given to Edgecombe  
County Red Cross drive for \$5,000.

The mill ordinarily would close  
Friday, December 19th, for the  
Christmas holidays but when the call  
was made through Chairman Donnell  
Gilliam for \$5,000, the employees  
petitioned the mill heads asking that  
their services be allowed for the extra  
day and the entire payroll be turned  
over as their contribution to the Red  
Cross.

Howard said that it was unusual,  
but in the face of a 100 per cent pe-  
tition he could do no less than co-  
operate with such spirit as shown by  
his employees.

## SELLING AGENTS for SOUTHERN COTTON GOODS

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Representing 18 mills—merchandising 25,000 fabrics

*Industrial Fabrics—Garment Fabrics  
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**Piedmont Color and Chemical Co., Inc.**

Oils—Soaps—Finishes—Bleach  
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Phone 2182

*The Size Penetrants for Spun Rayon and Acetate*  
**THAT WORK**

High Point,

North Carolina

## Cotton Goods Markets

New York.—The declaration of war against the Axis powers will mean that a large increase in production will be necessary in the cotton goods industry, which is already running at near capacity. The increase in production will have to come through various means, such as introduction of the seven-day week, which is already in effect in a number of Southern mills, increased speed of machinery (tests on this are under way under the sponsorship of the Textile Foundation and supervised by the Southern Textile Association), and increased output of workers.

All of the above mentioned methods of obtaining additional production are admitted to be emergency measures, but the present crisis calls for such measures. We shall in all probability be called upon to greatly increase our supplies of textiles to the armies of our allies, particularly China, and this will put additional strain on our productive facilities.

For the first time, blackout cloths are receiving national notice, with the possibility that they may be needed in large quantities in this country. The Cotton-Textile Institute has just issued a report of the cloths suitable for blackout use, and more information will likely soon be released on this.

As an example of what may be in store in the future with regard to cloth constructions, with production more important than style or design, the Cotton-Textile Institute, under the auspices of the National Bureau of Standards of the Department of Commerce, has voted unanimous approval of propositions to limit all cotton flannel to weights of more than six ounces, that fractional ounce weight be eliminated, and that a standard of cotton flannel weights and constructions be adopted. The same regulations, or similar ones, might come into being throughout the industry, thus eliminating much production loss due to changing of styles, constructions, etc.

With upland cotton, of the quality desired by mills, becoming scarcer, it is reported that a number of mills are experimenting with irrigated cotton grown in New Mexico, Arizona, and California. What results they are getting is not known, but it is likely that they will find troubles, if reports by mills that got some of this cotton accidentally recently are to be credited. Perhaps it will be satisfactory, or at least usable, if the entire mill is using it, but it has been found very troublesome when mixed with upland, rain-grown, cotton.

### **J. P. STEVENS & CO., Inc.**

*Selling Agents*

40-46 Leonard St., New York



## Cotton Yarn Markets

Philadelphia.—With the future depending on war developments, and every indication pointing toward a long war, the cotton yarn markets will likely spend some hectic months and years. Some yarns, particularly combed yarns, will be in ever-increasing demand for the armed forces, and naturally a decreasing supply will be available to the non-military public, because the industry is producing near capacity at the present time.

It has been stated by numerous sellers that now all should adhere in letter and spirit to the yarn ceilings in both carded and combed notwithstanding the disagreement of most combed spinners with margins that have been permitted them under the combed ceiling. It was the consensus that spinners and merchants should sell within the ceiling, but that efforts to have alleged injustices ironed out through co-operation with OPA should continue.

The new Government buying program is beginning to take form, affecting principally combed yarn, this far, but later to include some standard white extra-strength carded counts. A single such procurement for the Army, on which the contracts are scheduled to go out early in January, will require close to 18 million pounds of cotton yarn for various types of cloth, mainly poplin and twill.

Offers of carded cloth will be considered, but in the past the purchasing authorities have shown a definite preference for the combed cloth, and it is believed that this preference again will be exercised.

Using the present rate of production of the Southern combed yarn mills as a yardstick, the procurement under discussion would absorb practically the entire output of sale combed yarn over a period of about five weeks, though the yarn deliveries were more than 30 per cent in any one month during the life of the cloth contract. A priority advantage will go to the yarn mills getting some of this Army business, but a substantial part of the cloth probably will be furnished by weavers operating their own spindles.

It is believed probable that as the enlarged defense buying program gets fully under way, both cloth and yarn mills eventually will be directly allocated enough contracts to insure the Government a continuous flow of supplies of this sort, and these contracts will carry a definite price basis, arrived at by the purchasing authorities without consultation with the mills.

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REPAIRS**

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PIONEERS IN  
CARD CLOTHING**

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PRACTICAL  
CARD MEN HELP  
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*Problems*

If you have a carding problem you will find one of our service men easy to talk to, because, being a PRACTICAL CARD man, he "speaks your language."

Our service staff is also backed by a manufacturing experience which can be traced to the earliest days of the card clothing industry, by unequalled manufacturing facilities and by modern laboratory equipment.

Since we are PIONEERS in the card clothing industry, a carding problem that is new to you may be old to us. It will cost you nothing to find out.

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★ PRODUCTS AND SERVICES: Card Clothing for Cotton, Wool, Worsted, Silk and Asbestos Cards and for All Types of Napping Machinery • Brusher Clothing and Card Clothing for Special Purposes • Lickerin Wire and Garnet Wire • Sole Distributors for Platt's Metallic Wire • Lickerin and Top-Flats Re-clothed

## Nelson Urges Industry To Eliminate Waste, Plan for Future

(Continued from Page 26)

"If the necessities of national defense require that products be changed, that substitute materials or dye-stuffs be used, then the public should be told what those changes are, what to expect of the new product and how to use and care for it."

Informative labeling was also stressed by Mrs. Elliott as a service the industry should supply for the consumer. Intelligent buying, she said, was at all times an important guard against waste, but that it was of greater significance now. It could not be accomplished, however, without the assistance of manufacturers and retailers.

Assisting the National Consumer-Retailer Council on behalf of the manufacturers was a special committee of Robert N. Dowling, Cluett, Peabody & Co., chairman; Bartow H. Underhill, Pacific Mills; G. Martin Coffyn, Chatham Mfg. Co.; Standish W. Holmes, American Viscose; and Harry Riemer, *Daily News Record*.

## Industry War Plans Discussed At Columbia Meeting

Columbia, S. C.—The deep and far reaching adjustments that are likely to be imposed on the production and distribution of cotton goods as the war intensifies were the main topics of discussion at the annual mid-winter meeting of the Cotton Consumption Council.

Originally called for the purpose of considering plans to promote the consumption of cotton during the coming year, the meeting soon developed into a discussion of the probable effects of the outbreak of war in the Pacific on all sections of the industry.

Dr. C. T. Murchison, president of the Cotton-Textile Institute, asserted that the main task of the industry from now on would be to supply the material required for a successful prosecution of the war and added that all other aims and plans would be made subordinate to this. He explained that the spread of the war would undoubt-

edly cut off or reduce imports of many textile fibers and that cotton would be called upon to make up the shortage of these.

The speaker enumerated the great contributions of the industry to national defense over the last 18 months and predicted that over the next few months it would be called upon to increase production, especially of those items required for mechanized war. He said that the industry has already taken steps to simplify production by eliminating non-essential items in order to increase output to the levels demanded by the grave national emergency.

C. K. Everett, secretary of the Council, briefly summarized the promotional activities of the Cotton-Textile Institute and National Cotton Council and stressed the effort being made by the industry to supply workers in armament plants and other defense industries with sturdy, well styled clothing. Cotton, he predicted, would be used widely over the next few months to supplant silk, jute and flax, all of which are imported. He also predicted that the necessity to conserve wool supplies would also force the admixture of cotton in many wool cloths for civilian wear.

John Peix of the Institute of Distribution pledged the support of his organization to any campaign aimed at raising the standard of living of cotton farmers. John G. Travis of the National Association of Food Chains told of the efforts of the chains to promote cotton products.

Commissioner of Agriculture Wilson of Louisiana presided over the sessions.

## T. L. Sanders Now Living At Stanley

T. L. Saunders, who prior to his retirement was a well known and highly regarded cotton mill superintendent at Gibsonville, N. C., Morganton, N. C., and other places, has purchased a home at Stanley, N. C.

He is the father of W. P. Saunders, vice-president and general manager of the Pinehurst Cloth Mills, Hemp, N. C., and the Mid-State Cloth Mills, Red Springs, N. C.

# VICTOR MILL STARCH "THE WEAVER'S FRIEND"

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Southern Manager  
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## The Keever Starch Company, Columbus, Ohio



## WEAVING YARNS

6s to 20s either singles or two-ply on Tubes or Cones.  
LOCKE COTTON MILLS COMPANY  
Concord, N. C.  
Phone 4152

### Production Requirements Plan To Speed Up Priorities On Essential Requirements

(Continued from Page 22)

an industry basis as rapidly as the overall needs of the various industries are known in the Office of Production Management.

Since the anticipated requirements of a manufacturer may change if the pattern of his defense orders changes during a calendar quarter, the Production Requirements Plan provides that interim reports may be filed. The first quarter for which applications under the new plan will be received is from January 1st to March 31, 1942.

Where necessary because of long-term commitments or the nature of his business, a manufacturer may file an additional application covering the second quarter at the same time he files for the first. All applications must be for calendar quarters, however, so that the information obtained by the Office of Production Management will be uniform as to dates.

The new PD-25A application forms are now ready for distribution from the Priorities Division of OPM in Washington, or field offices.

Some of the main points of the new plan follow:

The Production Requirements Plan will go into effect for the first calendar quarter of 1942.

Complete inventory information must be given. Inventories must be held at the minimum practicable level.

A list of critical materials known as Materials List No. 1 is part of the plan. The preference rating granted may be used only to obtain materials on this list except when other items are specifically named on the form in a section provided for that purpose.

The rating will apply only to materials needed for defense or essential civilian production, and cannot be used to obtain capital equipment. Such capital items—for example, machine tools and other production goods—must be obtained in the usual way by filling out application form PD-1, if they cannot be obtained without aid.

Application form PD-25 may be reproduced by anyone who wants to use it so long as it is reproduced exactly in its original form, size, color, and phraseology.

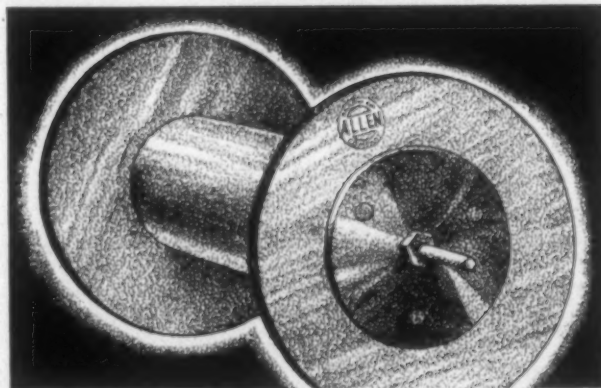
An applicant granted a rating under the plan serves the rating on his suppliers by a prescribed endorsement on his purchase orders.

Suppliers of the applicant may extend the rating to obtain delivery of materials which are to be physically incorporated in the applicant's products, in accordance with the terms of the preference rating order issued in connection with the plan.

No preference ratings other than those authorized in Form PD-25A may be used by the producer operating under the plan to obtain deliveries of production materials or maintenance, repair and operating supplies unless specific authorization is granted.

All communications and applications should be addressed to the Production Requirements Plan Section, Division of Priorities, Office of Production Management.

# FREE 1-2 A WARPER



Equip present cotton warpers with Allen High Speed Cotton Warper Beams and increase production at least 50%. A comparison between the speed of your present beams and Allen Beams 1,000 y.p.m. speed will prove this fact conclusively. Then consider, that even at 1,000 y.p.m. you're sure of a perfect warp every time . . . that Allen Beam Barrels are practically indestructible under normal use . . . and that Allen Wooden Beam Heads won't chip or splinter and are unbreakable. We think you'll agree it's like getting half a warper absolutely free.

## ALLEN COMPANY

440 RIVER ROAD

NEW BEDFORD, MASSACHUSETTS

Southern Rep.: MR. L. E. WOOTEN, FORT MILL, S. C.



## Report By Quartermaster General On Procurement for Army

(Continued from Page 35-F)

the tropics. Procurement to date, costing \$2,608,855, are as follows:

Neckties, cotton, khaki	10,522,407
Neckties, black	8,465,346

**Handkerchiefs:** Each enlisted man receives six handkerchiefs upon his entry into the military service. Six additional handkerchiefs are required for replacement during the first year. During each year it is estimated that a total of 12 handkerchiefs per man will be required.

Procurements to date total 29,077,019, at a total cost of \$1,367,520. The quantity procured is slightly less than two years' requirements.

**Towels:** Actual procurements during fiscal years 1941 and 1942 have been as follows:

Towels, bath	2,553,039	\$2,427,317
Towels, huck	13,341,843	1,279,362
Total		\$3,706,679

The basis of issue for towels, bath, is one per enlisted man and two per flying cadet at the time of enlistment. Towels, huck, are issued at the rate of two per enlisted man and flying cadet, plus four for bakers and cooks. The Government also provides maintenance on huck towels, making the average issue per year four towels per man and flying cadet.

The procurement of towels, bath, in excess of initial issues is to provide for resales. Very large quantities of this item have been and are being sold to all ranks in the military service.

**Jackets, Field:** This is a new item of clothing especially designed for wear in the field. It provides both for comfort and military appearance. It replaces one of the coats, wool, formerly issued.

"Procurements to date total 4,328,343 garments, at a manufacturing cost of \$7,590,498. Because of the popularity of this garment and the extent of its use it now

appears likely that 100 per cent replacement will be required annually.

Due to limited production of wind-resistant cloth, which constitutes the outer portion of the garment, the Quartermaster Corps has as yet been unable to procure sufficient stocks for size purposes and reserves. Some additional procurements of the item will be made as soon as cloth now on contract becomes available.

The procurement of the principal cloths to date have been as follows:

	Yds.	Cost
Melton, 32-oz. overcoating	14,987,060	\$ 36,916,641
Serge, 18-oz., wool, light and dark	61,855,469	175,369,025
Khaki, 8.2-oz., or substitute therefor	141,047,000	66,043,485
Shirting, flannel	41,450,000	74,391,356

The foregoing constitute the principal basic fabrics required to clothe and equip the Army. Linings and minor cloths, commonly known as findings, are required in substantial quantities to provide linings, pockets, etc., for overcoats, field jackets, mackinaws, combat clothing, and practically every type of garment.

For the manufacture of items requiring the cloth mentioned above the following quantities have been used:

	Yds.
Melton, overcoatings (for overcoats and mackinaws)	14,421,000
Serge, 18-oz. (for caps, coats and trousers)	31,339,000
Shirting, flannel (for shirts and lining of field jackets)	23,431,000
Khaki, 8.2 oz. (for caps, shirts, trousers, breeches and neckties)	80,052,000

The balance on hand and the remaining to be procured will constitute the critical reserve for cloth for an army of 3,200,000.

**Sleeping Bags:** Bags, sleeping, are issued to all military personnel in the cold-climate areas. It is necessary for sleeping purposes whenever an individual leaves his permanent quarters. They are also being issued to the Fourth Armored Division at Pine Camp, N. Y., and to ski and snowshoe troops in continental United States for

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training purposes. A total of 81,438 sleeping bags has been procured at a net cost of \$1,943,885.

**Rolls, Bedding:** This item is issued to each officer, warrant officer, and nurse, and is utilized by them whenever away from barracks or cantonments. The quantities procured to date provide for initial issue only, as a replacement of this item is relatively small. A total of 147,661 rolls, bedding, has been procured at a total cost of \$1,271,911.

**Clothing Allowances:** The peace monetary clothing allowance for a soldier on a three-year basis was for a number of years around \$200 per man. In fiscal year 1938 this allowance was \$215.62 on a three-year basis, or \$125.82 on a one-year basis. In fiscal years 1939 and 1940 and the early part of 1941, reductions were made in these monetary allowances due to transfer of items to a free-issue basis and to savings accruing, as the small Army then in existence were mostly in permanent garrisons and heavy wear on clothing only occurred during limited maneuver periods.

The present initial allowance for clothing costs \$107.89 per man. Maintenance for 1 year cost \$54.16, or a total cost at current prices of \$162.05 per man for the first year that he is in the service.

"Accurate figures are not yet available as to maintenance costs for a man on second and third years on current mobilization. However, it is estimated that the annual cost for the second and third years will approximate \$82.64 per man on a peace basis.

"I wish to particularly call attention to the fact that procurements except in the case of critical items have so far been largely upon a peace maintenance basis. *Should it be necessary to utilize our Army for shooting purposes in the defense of our country, maintenance requirements immediately will be greatly increased* (Italics ours.—Ed.) For example, in the case of trousers (woolen) a man only gets one pair per year as replacement in peace, but in war four pairs per man per year are required for maintenance. Similar conditions exist for most of the items of clothing and equipage. I, therefore, deem it essential in the interest of national defense that wherever practicable savings be applied to those items most difficult to procure in building up stocks in excess of peacetime maintenance requirements.

The above remarks pertain only to items procured by the Quartermaster Corps. The other items mentioned, such as blood, watches, soda fountains, thermometers, etc., all belong to other branches of the War Department.

As of October 31, 1941, the report of the Adjutant General shows there are 1,642,393 officers and men in the Army. These officers and men are today all properly equipped. In addition to this, between two and three hundred thousand selectees, who were discharged as over age, have been equipped with clothing, most of which went home with them. With the critical situation confronting this country today, I would be remiss in my duty as Quartermaster General of the Army if I did not provide not only the clothing necessary to equip our present Army but a reasonable reserve to meet a possible future need. I do not consider that any overprocurements have been made. I would very much rather be criticised for being liberal in estimating my requirements than to find myself in a position with an increased Army with no clothing or shoes to issue to them.



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## Nelson Tells Industry It Must Do Much More In Present Crisis

(Continued from Page 13)

vision and self-denial, so also must labor; if industry for the duration of this emergency must forego some of its accustomed ways of doing things and temporarily give up some of its privileges, so too must labor. The compulsion upon one is as great as upon the other. I have confined my self today to industry's responsibilities simply because I am, after all, addressing industrialists.

And it is precisely because these weighty responsibilities do rest upon industry and upon labor equally that I would like to add one word more:

More than anything else today, we need a unity of industry and labor in this emergency. I don't mean an impossible sort of unity, in which no employer ever says "No" to a labor spokesman and no union ever dreams of talking about a strike. I mean the kind of unity which comes to strong, self-respecting and independent groups which realize to the full the fact that they are on the same side, working in a common cause. I mean the kind of unity which comes when the members of each group know that while they may have disagreements and differences with the members of the other group, the members of that other group are, like themselves, making an honest and sincere effort to put their country's need above their own in a time of crisis. I believe that we can attain that unity in America in this defense emergency. I believe that we will attain it, and will reap untold benefits from the fact, once all of us see clearly the threat to our way of life which is embodied in this Nazi romance, and resolve as individuals to make the abolition of that threat our first order of business.

The months and years just ahead of us will not be easy. They contain many uncertainties and many hardships. Our ability to rise above petty self-interest is going to be put to the supreme test. Yet we need not be discouraged. Every so often, in the history of America, there comes a time which puts all Americans to the test and requires them to show far a time that they can live and work the hard way instead of the easy way. They have always met that test thus far: we ourselves will meet it now. And once again, as in the past, the meeting of the test will be followed by an era in which America becomes freer, stronger and happier.

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## South Carolina Division, Southern Textile Association, Meets At Clemson

(Continued from Page 14)

looking over the audience I see two or three weavers here. I know that before one shift went by they would call my attention to the size of the bobbins.

Are there any more questions? If not, we shall hear at this time from our research director for the Textile Foundation and the Southern Textile Association, Mr. Dunlap.

G. H. Dunlap, Director of Research, Textile Foundation, Walhalla, S. C.: Gentlemen, I am making my usual round of these meetings. I just want to tell you men the purpose of my work. It is encouraging the superintendents and other proper persons in cotton mills and trying to work with them to run practical tests in the mills on things that are of interest to them. I have around thirty tests that are being run in the mills now—not thirty different tests; many of them are duplications. By that I mean several mills are running them. One test, in particular, five mills are running. I have tests on everything except the looms, from the opening units clear on out to the spinning frames. Some of them are practically finished. I have one that is finished on the pickers, with and without a blending reserve, studying the variation in the lap and in the product of every machine through the spinning. I have one in the opening room, with and without the vertical opener. I have others on the cards, where we have increased the speed of the licker-in and the flats. I have others on the card where we have increased the speed of the cylinder. When I speak of increasing the speed of the cylinder I mean increasing everything in proportion. Practically everywhere I go it is increased production from the cards that they are crying for. If you should get a new card it would cost you \$1,200, or probably you cannot get it at all. In one mill the strength of the yarn increased from 61 to 64; that is, when running the cylinder at 196 revolutions per minute. My single strand tests bore out this fact. Another mill increased the speed of the cylinder from 165 to 192, and the strength of their yarn also increased. I made the same tests there that I did on the other and verified their findings. There are three other mills that are going to run this. The condition of your cards, the condition of your clothing, the condition of the cylinder bearings, the floor vibration, would all have a great deal to do with that. I did not set up the cylinder speed at which they ran this test; that is their own arbitrary figure. But from what I have done I believe the cylinder can be run faster than 165. I know one mill that makes a nationally advertised product that has been running the cylinder at 185 for years.

I have other tests on the drawing frames, the roving frames, and the spinning frames.

I have not been able to visit all of you; that is impossible. I think I could settle down in two or three counties of North Carolina or South Carolina or Georgia or Alabama and have all I could do. But nothing would please me more than to have you ask me to call on you and work out something. This is a co-operative thing; you get the advantage of what the other mills do, and they

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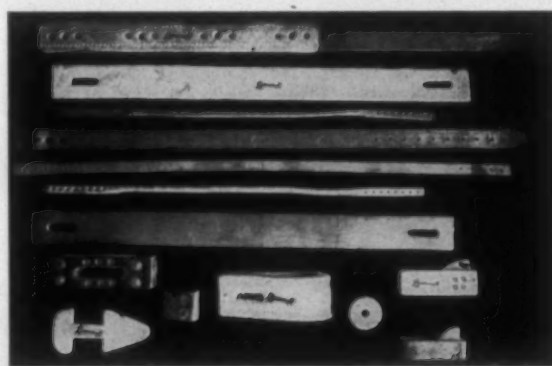
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*Chairman:* Are there any questions that you want to ask Mr. Dunlap?

*W. E. Hammond,* Supt., Balfour Mills, Balfour, N. C.: What is the condition of the yarn on those high speeds? Does it look as clear?

*Mr. Dunlap:* That is one thing I have not finished. As you know, the Department of Agriculture put out some appearance standards whereby you can grade your yarn A, B, C, D, etc. I still have that yarn and am going to grade it according to those standards, but I have not done it yet.

*Mr. Hammond:* I have increased my speed from 165 to 173. I thought that was as far as I could go, on account of centrifugal force; I was afraid it would tear up my file. I had it set at .007. I did not know others had gone up higher than that until I attended the meeting in Charlotte and learned that some had gone up to 193. Perhaps they set it at .010.

*Question:* Can you tell us what the production was at the different speeds?

*Mr. Dunlap:* One mill carded 9.92 pounds per hour at 165 and at 192 carded 11.84 pounds per hour. Another mill at a speed of 172 carded 10.2 pounds per hour, and it went from that 11.9 pounds when the speed was increased to 196. The percentage of lint and fly in the first mill, carding at 165, was 1.0516; at 192 it was 1.003. The percentage of cylinder and doffer strips at the speed of 165 was .905 and at 192 was .7104. The percentage of flat strips at 165 was 3.389; at 192 it was 3.324. Of course, all this is preliminary.

*Question:* Do you have the nep count on that?

*Mr. Dunlap:* No nep count.

*Question:* What is the point of the change?

*Mr. Dunlap:* Increased production.

*Mr. A.:* Do you have there what type of cotton you ran?

*Mr. Dunlap:* This was cotton grown in Mississippi and Arkansas, 1-1/16" staple, two-thirds middling and one-third strict low middling.

*Mr. A.:* Were those cards on the ground floor?

*Mr. Dunlap:* On the third floor.

*Mr. Stutts:* Some of you may not be familiar with Mr. Dunlap's work, and as an officer of the Southern Textile Association I should like to say a few words about it. Nowadays one is inclined to think there is a catch to anything which one can get for nothing. Mr. Dunlap's salary and expenses are paid by the Textile Foundation, and the work is supervised by the Southern Textile Association and the Arkwrights, through a committee. His services are available just for the asking; there are no strings attached whatsoever.



*Question:* Mr. Dunlap, when you have all the figures in front of you, to what do you attribute the increase in breaking strength?

*Mr. Dunlap:* I told you a while ago I could not answer that question. The man that ran the test could not answer it. In running this test we did not expect the yarn to break any higher. If it had broken at the same point we would have been satisfied, because we got increased production. We were just as startled as you are when we found we got increased breaking strength. This yarn was tested under standard conditions. The humidity and temperature did not vary one iota.

*Question:* Did you make those tests on the same cotton?

*Mr. Dunlap:* No, sir. The two cottons were entirely different. These two mills do not run the same cotton.

*Mr. B.:* Were those tests run pretty close together in time?

*Mr. Dunlap:* They were run in the same month, yes, sir.

*Mr. B.:* Well, they would probably have the same cotton.

*Chairman Splawn:* Are there any more questions on this matter?

If not, we will go into the carding and spinning discussion, for which G. P. DeBrule is chairman. Mr. DeBrule has asked Frank D. Lockman, a past president of the Southern Textile Association, to substitute for him this morning, so Mr. Lockman will take over the meeting now.

*Frank D. Lockman,* Supt., Monarch Mills, Lockhart: I know the officers of this Division are proud of the fine attendance they have here this morning. I am indeed glad to see so many present.

#### New Employees

I suppose most of you have had mailed to you the program for this discussion. The first question is: "How do you introduce your new employees to their work?" If somebody feels that he has a good system, tell us how you do that.

*E. W. Metzger,* Supt., Darlington Mfg. Co., Darlington: We do not do very much about it, I am afraid. Of course, the overseer wants to know what the employee has been doing and where he has been. What we really stress now, by bitter experience, is giving some instruction on how to work safely with the machine. We had a very unfortunate experience—no serious accident but a lot of little accidents, which showed that the men had not been properly instructed. In regard to the job I am afraid we do not give him very much instruction. If he says he is a carder we expect him to know how to operate a card. What we are very careful about is to instruct him thoroughly about safety in operating the machine. In fact, we have gone so far lately that in examining the man's papers, his Social Security card, etc., we write on the back of the card a statement about like this: "I have been instructed by the foreman in regard to safety in operating the machines," and he is required to sign that. I do



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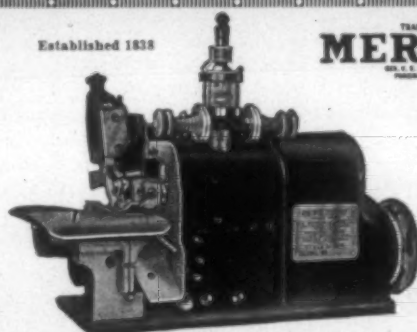
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not know how much good that will do. But if an accident happens we can look at the man's record and see that he has been instructed, and he cannot say that he has not been.

*Mr. Lockman:* Some of you tell us what system you have. It will be a help those of us who have no system at all. Mr. Hammond, let's hear from you.

*Mr. Hammond:* Mr. Lockman, I think that is fine. We tell the overseers to caution the employees about safety but have no proof that they do it. I think that is a fine system for the prevention of accidents. There is one thing I can tell this meeting, and that is that you will have to teach green labor, because skilled employees are getting scarce.

Someone told me once that when persons applied to him for work as weavers he gave them a bunch of yarn and told them to take it home and learn how to tie a weaver's knot and when they learned how to do that to come back. They were required to learn outside the mill, which the law will not permit you to do today. We have to teach our help, because we cannot depend upon getting skilled labor; we cannot get it, and we have to take them in and pay them while they are learning.

What the gentleman said about the entry on the card I think is fine, because we are all working for safety. It is greatly different from what it was a few years ago. If an accident happened then it was just too bad, and that was all there was to it. Now we know that an employee is paid a certain sum over a certain length of time, for injury to or loss of a finger or hand or toe or whatever it is.

*Chairman Splawn:* Mr. Lockman, I believe this question we have here is right along the line of a few questions we had back several years ago at a meeting over at the Franklin Hotel in Spartanburg. Those were the dearest questions we had in that meeting; I don't think there were two answers to either one of them. But I think they are the liveliest questions we have right now and the most important. I believe this question pertains to more or less experienced help coming in rather than to bringing in new help and teaching them. You are going to take care of the new help. One of my biggest problems has been the fellow that comes in tonight and works tonight or who comes in today and works today but is gone tomorrow. There is something that has not been told that person, and he does not understand it. I think when an employee comes in we should introduce him to the second hand in the place where he is going to work. We should have the job laid out and go over it with that person—and don't be in a hurry. Take time to go over that job with that particular employee. Have the duties listed. If there are any difficulties, tell him about those. You know there are certain things that even the old employees have trouble with. So take time to go over the duties with that person and make him feel at home, and if there is a difficulty tell him: "Here is something we have had trouble with. If you cannot handle it, take it up with your overseer. If you don't get satisfaction, come to me. Don't feel that you have to quit your job." I think if you start them in like that they become acquainted and soon become good operators and you have a satisfied person there who, if another person comes in and is not satisfied, will clap him on the shoulder and say: "Jack, go down

and see that man. He will explain everything to you. This is a good place to work."

*Mr. Stutts:* In our plant a new employee is usually interviewed by the superintendent, who finds out where he has worked and that general information, in order to have a better understanding of his experience and where he has worked before. Also sometimes when a man has left under unfavorable conditions, and if you hire him back again we find it is a very good policy for the overseer and the superintendent to talk with him and let him know when he comes back that they expect him to run the job and he had better run it, but also give him a good pat on the back and let him know you are glad he is at work with you again. Very often he takes a different attitude. It is a good plan if the second hand introduces a new employee to the operatives on his job in the preceding shift and also to the operatives on each side of him. We also instruct him as to the exact time and date when he will be paid off. Also, we emphasize to him the various labor regulations which govern and that we expect him to carry out. There are so many labor laws and rulings that you can get into a jam about by a new employee's saying: "Well, they did not tell me anything about it."

*A Member:* A program has just been instituted down with the Graniteville Co., and we have with us down there a man who has been with the Bibb Mfg. Co., Columbus, Ga., for a number of years and who has had a great deal of experience. He has inaugurated a policy there at Graniteville that I want him to tell you something about. He has secured the services of B. R. Turner, formerly of the State Department of Education, as his personnel director, and I think he has something worth while to tell you. I ask Mr. Henderson to tell us something about this matter.

*Raymond E. Henderson, Supt., Graniteville Co., Graniteville:* I feel very ill at ease here, Mr. Chairman, because I am a stranger in South Carolina; I came from the Bibb Mfg. Co. in Columbus and Macon, Ga., where I had stayed all my life. I have been here only a few months. I am now with the Graniteville Co. We have not gone very far with our program, as we have just gotten started. The Bibb Mfg. Co. has worked out a program which we are following more or less there at Graniteville. B. R. Turner is at present our personnel manager and is in charge of employing the personnel and also of teaching the learners and of the employing of skilled people to run our mills. We have six mills, four in South Carolina and two in Georgia. He is setting up this program in Graniteville and will expand it as it works out.

We have probably a little different situation from most of you. We have a regular State high school in our village, and in the basement of that we have put quite a lot of machinery. We have two cards, a drawing frame, and in a few days we shall have a slubber, three spinning frames, and six looms. We have regular vocational classes in the morning for men who work in the evening and in the evening for the men who work on the first and the third shift. They operate in the regular way most vocational schools are operated. In addition to that, the school has employed an instructor to teach girls to spin on those spinning frames. At the present time there is a class of eight girls learning to spin. At present they have



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class three hours a day and later will have four or five hours. When they have mastered the elementary principles of spinning they are taken to the mill, if they show progress, and there are put on spinning frames. There their progress is very, very fast. We have copied that program from the Olympia High School in Columbia. We expect later to establish loom-fixing classes and other classes.

I might say, while I am on my feet, that this is my first meeting in this State. I have enjoyed it immensely and I look forward to attending others.

Mr. Lockman: Mr. Henderson, we are glad to have you, and we thank you for your remarks.

**Blending Reserve On Pickers**

The next question for discussion is: "What improvement, if any, have you derived from the installation of a blending reserve system on pickers?" Somebody who has put in this blending reserve on pickers tell us what benefit you have gotten from it and what you think of it. Mr. Lancaster, from Pacolet, can't you tell us something about it?

J. Z. Lancaster, Asst. Supt., Pacolet Mfg. Co., Pacolet: There is a definite improvement in the variation yard for yard on the laps, but as to the amount of improvement I do not have any statistics or anything that would show just how much there is.

Mr. Lockman: Mr. Dunlap, did you state some time ago that you have some tests you have completed on that?

Mr. Dunlap: I have not broken the yarn on this; otherwise it is all done. We took two laps from a machine with the blending reserve. This was tested on a Saco-Lowell lap meter. Out of 47 yards, 46 yards were within the limits of 0.2 ounce; on another lap, 43 yards out of 47 were within the limits. On two laps taken from a machine without the blending reserve, 24 yards out of 47 were within the limits, on one lap, and on another 30 yards out of 47 were within the limits.

Question: Are your limits 0.1 on either side?

Mr. Dunlap: It is 0.15 on either side.

Mr. Lockman: 0.15 on either side; that is 0.3 variation.

The next question reads: (a) "What has been your experience with relative humidity with super draft as compared to conventional type roving frames?" (b) What means do you have of controlling excess humidity?" Will someone who has super draft and who had the conventional type previously give us his experience?

Mr. C.: I have had experience with both, and I found that we could not run nearly as high relative humidity on the super draft as on the conventional.

Mr. Lockman: Have you a figure in mind as to the relative humidity?

Mr. C.: Well, I ran a relative humidity of 55 on super draft.

Mr. Metzger: We have found the same to be true; we have to keep in our spinning room a relative humidity of from 48 to 50 per cent.



Mr. Lockman: That is on super draft?

Mr. Metzger: Yes, sir.

Mr. Lockman: Will you give us your experience with the conventional type?

Mr. Metzger: Several years ago, when we had the old type, it used to be higher; I do not remember the figure. But if we go above 52 on the super draft we get in trouble every time.

Mr. Dunlap: What kind of trouble? What do you run into?

Mr. C.: Ends running slack—lapping up.

Mr. Lockman: The second part of that question is, "What means do you have of controlling excess humidity?"

Mr. Metzger: Just regular control.

Mr. Lockman: What means of control?

Mr. Metzger: Well, we have the Parks-Cramer control.

A Member: We have that control, too, but when the humidity gets higher than that control can take care of what can you do then? We have controls to keep it within one range, but then what do you do?

Mr. Lockman: Somebody tell us what means you have, when the humidity gets too high with the control cut off, what means you have of controlling that humidity.

Mr. D.: In the winter time turn your steam on. In the summer time open your windows and just let it out.

Mr. Lockman: Does that have the desired effect?

Mr. D.: Well, it will bring it down, but sometimes it will bring more ends down, too.

A Member: Opening the windows makes it that much higher in the summer time. In the winter time the steam will bring it down.

Mr. Lockman: All right, somebody else tell us how that excess humidity can be controlled. Mr. Stutts, have you anything to say on that?

Mr. Stutts: The only thing you can do is control it by air-conditioning. The mills are coming more and more to that. Some years ago, you know, someone introduced a bill in the South Carolina legislature to require air-conditioning in cotton mills. Everyone thought the man who did that was a fool, but I think twenty years from now all the mills will have it.

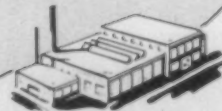
Mr. Hammond: It is a question in the summer time, when the humidity runs very high, if steam will help that.

A Member: If you have a wet outside condition in the summer time that can be altered by shutting the windows. That, of course, raises your dry bulb to an excessive amount, which may not help you with your ends down. But it helps your relative humidity, which, as we all know, is the difference between the dry bulb and the wet bulb.

Mr. Lockman: We will pass on to the fourth question: "How do you inspect your new bobbins and quills? (a) What percentage of rejections do you find in quills? (b)



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*What percentage of rejections do you find in bobbins?"*

If someone has a system for the inspection of new bobbins and quills, please tell us about it.

*Mr. Hammond:* We have a machine that runs 1,100 revolutions per minute on which we test them. I began testing my bobbins a few years ago, and you have no idea, if you do not test them, how many bobbins there are that are not fit to put on the spindles. We test all of our bobbins and have been condemning a good many of them. The bobbin makers do not like it at all, but it is worth the time it takes to do it.

*Question:* Is that a device for gauging the size or the balance?

*Mr. Hammond:* That is for the balance. We gauge a certain number—not every one, for size, but we do gauge them for balance.

*Mr. Lockman:* The next part of that question is: "What percentage of rejections do you find in quills?" What percentage of the quills are rejected, Mr. Hammond?

*Mr. Hammond:* I believe the last figure was 2.17 per cent.

*Mr. Splawn:* I think that would depend upon whether it is the first time you gauge them or if it is later, after the makers have found out you are gauging them. Our figure was 5.3 per cent, I believe, the first time, and since then 1.6 per cent.

*Mr. E.:* I should like to say something on that as a weaver. We have Crompton & Knowles looms and have to have a very accurate test on the quills if we do not want our warp broken out. We bought a bunch of quills a few years ago, and of those about 60 per cent were discarded. Then we bought some more, and very few were discarded. We bought 10,000 a few weeks ago, of which we threw out fewer than 100. I think that bears out Mr. Splawn's statement. If when we buy quills we let it be known that we are going to put them through this test we shall have to discard a much smaller percentage of them.

*Question:* How do you test them?

*Mr. E.:* We do it by hand. We have a jig there into which we stick the butt of the bobbin, and it will not go through. Then we stick it in another one, and it will go in. If it will not go in, out it goes. It can be done very quickly and accurately after you get a man trained to do it.

*Mr. Hammond:* Mr. Lockman, I think any bobbin maker would be glad to furnish a mill with a bobbin gauge. I have one with which I can measure every part of the bobbin. We always double-check ours; after the first testing we wait a few weeks and then check those we rejected at first, so as to be fair to the bobbin manufacturer. We find then that many of those we first rejected we can use.

*Mr. Lockman:* Is there anything else?

If not, that seems to wind up the discussion. I want to thank those who have taken part in it and want to say again that this is a fine attendance.

The meeting is now adjourned.

Thereupon the meeting adjourned at 12:10 o'clock P. M.



## Hercules Powder Co. Is Sued for \$600,000 By Fruit of the Loom

Providence, R. I.—Fruit of The Loom, Inc., which operates a cotton goods finishing plant in Pontiac, R. I., has brought a \$600,000 civil action in U. S. District Court here against the Hercules Powder Co. Plaintiff asks for a jury trial.

It is alleged in the declaration filed by Swan, Keeny & Smith, attorneys for plaintiff, that Hercules Powder Co. developed and sold to the plaintiff in 1939 and 1940 a new synthetic resin for use in the finishing of cotton goods; that this resin was represented to be free of harmful ingredients and that it had been tested and found satisfactory. It is further alleged that plaintiff used large quantities of this synthetic resin and had goods processed with it; that particular shorts for men and boys caused many cases of dermatitis, and that many persons contracting this disease lost sleep, suffered much pain and also expense.

It is alleged that Fruit of the Loom, after receiving complaints from its customers, asked Hercules Powder Co. to assume responsibility and meet claims brought against Fruit of the Loom, but that this demand was not met.

Plaintiff avers it lost business; that the good-will of the company suffered; that it spent large sums refinishing the goods returned by customers, and that it spent large sums in allowances to customers.

## Sea Island Lint Failure in Cuba

Washington, D. C.—Sea Island cotton has not proved a success in Cuba, the Department of Commerce reported recently.

Efforts to grow sea island cotton will be abandoned for the time being at least, the Department reported after Cuban attempts had proved decidedly discouraging.

About 50 acres of this type of staple were expected to be planted for the 1941 crop and production of between 20 and 25 350-pound bales was anticipated.

The actual area planted, however, was only 35 acres and the total crop amounted to only 3,500 pounds which was sold in the United States at an average price of 25 cents a pound.

## Draper Corp. To Pay Bonus and Two Dividends

Boston, Mass.—The Draper Corp. announces a Christmas bonus for its 4,000 employees, to be paid on a sliding scale. Employees with 10 years or more of service will receive \$75; six to 10 years, \$60; three- to six-year class, \$45, and \$30 to all employed since October 1, 1940. Men called for Army duty will also be paid bonuses. In the past the highest bonus was \$50.

At the same time the concern declared its regular quarterly dividend of 75 cents per share, payable January 2nd to stock of record November 29th, as well as an extra year-end dividend of \$1 per share, payable December 19th to stock of record November 29th. This brings total payments for the year up to \$4 as against \$5 paid in 1940. Last year the company declared two extras, each for \$1.

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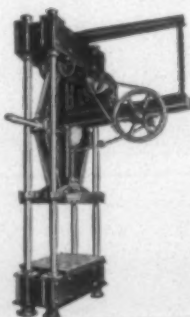
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## Delta Cotton Crop Held To Be "Disappointing"

Greenwood, Miss.—The size of the Delta cotton crop is somewhat disappointing compared with early expectations, it is remarked by William Garrard, general manager of the Staple Cotton Cooperative Association, in his monthly report to the board of directors. Discussing this fact and the recent dullness of the market, Mr. Garrard says:

"Regardless of the lull in active buying for the past two weeks, our Association members have sold 54.2 per cent of their deliveries as compared with 62.5 per cent sold to this date last year.

"There are several reasons for the dull market at this time.

"First, the high grade staple cotton for which there has been such an active demand has been to a very large extent sold and has passed from the original grower to the shipper.

"Second, on an average mills are well covered with cotton 'on order' which will supply them into the new year.

"Third, the uncertainty of prices at this time has also had an effect on the market.

"Fourth, due to the exceedingly high cost of cotton this year, as compared with several years previous, shippers are not in position to carry the stock of cotton that heretofore has been possible.

"Cotton is now selling practically for double the price it brought a year ago, and few shippers are in position financially to carry twice the money value in a stock of cotton that they could carry when the selling price was one-half the current selling price. Furthermore, our experience has been that there is always a dull period through November and usually continues through December, with a revival in activity occurring after inventory time when mills begin to replenish their supplies early in the new year.

"The size of the crop in the Delta is somewhat disappointing compared with early expectations. The Government estimate for the Delta as of November 1st was 855,000 in 500-pound gross weight bales, which when reduced to box bales is 820,537. The ginning reports as of November 1st showed total ginnings for the Delta of 756,501 bales. As practically all cotton has been harvested, except in the Upper Delta, we feel that the November estimate by the Government should prove approximately correct. However, the remainder of the cotton to be harvested will all be low grade and will be of no interest to the majority of the mill trade which requires a large percentage of high grade cotton from this section.

"The stock on hand in all Delta warehouses as of November 1st was 762,430 bales. This compares with a high point last year when 626,825 bales were in storage in the Delta on December 1st. This increase in the stock is attributable of course to the early and rapid movement of the current crop, and our stock on November 1st this year will no doubt be the high point for the current season.

"It is interesting to observe the average selling value per bale of the 1941 crop as compared with the selling price per bale to the same date in 1940. This year the average price per bale is 102.27, while last year at the same time the average value per bale was 61.46."

## Institute-Council Hold Series of Promotion Meetings

In order to heighten retail interest in cotton products, especially for the Christmas holiday promotions, the Cotton-Textile Institute and National Cotton Council have been conducting a series of conferences or "clinics" with key merchandising executives in a number of the country's most important distributing centers.

The conferences were patterned somewhat after the series of meeting with retailers last spring which did much to create retail support for the widespread observance of National Cotton Week. The meetings held thus far have been eminently successful. Attendance has ranged all the way up to 75, the high point being reached at Philadelphia on November 7th.

The first conference took place in Detroit on October 23rd under the auspices of the Retail Merchants Association at the Statler Hotel. Others followed in this order:

October 24—Denver, Colo., at the Cosmopolitan Hotel.

October 27—Dallas, Tex., at the Chamber of Commerce Conference Room.

October 28—Houston, Tex., at the Houston Club.

November 5—Cleveland, Ohio, at the Mid-Day Club.

November 6—Cincinnati, Ohio, at the Netherlands Plaza.

November 7—Philadelphia, Pa., at the Benjamin Franklin Hotel.

In his talks before these groups, C. K. Everett, director of merchandising of the Institute, emphasized that retail promotion of cottons need never stop at any time during the year.

He laid stress on the fact that cottons can be promoted successfully from the standpoint of quality and eye appeal and that retailers would do well to bring to the attention of the public many improvements and refinements in manufacturing and finishing processes that have virtually transformed the appearance and wearability of many types of cotton products. In the discussions that followed the talk, a number of retailers asserted that the marked improvement that has taken place in manufacturing and finishing methods in the last few years has been overlooked all too frequently and should be used for promotional purposes in place of price appeal.

Mr. Everett's formal presentation on cotton merchandising was followed at each meeting by lively discussions. In the main, comment by those in attendance revolved about the difficulties encountered in obtaining adequate supplies of certain types of merchandise. Print cloths and wide sheetings were the goods most frequently mentioned in this connection. Reasons for the increases in cotton prices that have taken place since the launching of the defense program were explained by Mr. Everett who urged that stores pass on this information to consumer.

Retailers at these meetings were told of new ways of promoting cottons for Christmas and of the large number of cotton items suitable for holiday gifts. Mr. Everett also discussed the merchandising of household cottons and explained the unified promotion program of the Cotton-Textile Institute and National Cotton Council.

Retailers showed marked interest in the program for promoting cottons and indicated that they would give it strong support.

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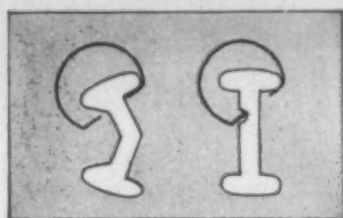
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## An Intertrade Statistical Service for the Textile Industries Recommended

Creation of a central intertrade statistical office by the textile industries and related trades, to provide statistical guides which would apprise manufacturers, converters and distributors of impending market changes, is proposed in a report on a study of *Inventory Trends in Textile Production and Distribution*, just published by the Textile Foundation.

After analyzing the advantages and disadvantages of various inventory policies in practice, the report points out that a substantial portion of the inventory problems which have beset textile mills during the past decade arose from a general failure to perceive impending market changes and adjust operations accordingly.

The report is the last in a series of seven under the general title, *Inventory Policies in the Textile Industries*, based on studies conducted for the Textile Foundation by the Industrial Research Department of the Wharton School of Finance and Commerce, University of Pennsylvania. The six preceding reports, which are cited as references in the final publication, deal with studies of inventory management in the denim, men's wear fabrics of wool, cotton fine-goods, rayon weaving, cotton print cloth, and full fashioned hosiery industries.

The report just published describes nine different statistical guides which, on the basis of experience during the 1930's, are indicated as likely to be helpful. They are listed as (1) commitment position of buyers at each intermediate market level between mill and consumer, (2) billed-and-held goods at mills, (3) unfilled orders by delivery month, (4) unfilled orders by whether blanket or specified, (5) buyers' stock position on merchandise, (6) inventory position of the market, (7) unsold mill stocks, (8) new orders, production, unsold stock by constructions, and (9) prospective supply versus prospective deliveries.

Commenting on the practicability of such a program, it states that distributors are nearly as badly in need of information to guide their operations as are the mills, and that the program would also offer some advantage to converters, providing a basis for co-operative action. The function of the proposed intertrade statistical office would be the collection of commitment and related statistics from distributors, converters, and others on a sample basis, and the collation in a summary report of these statistics with those on mill operations already being collected by various mill agencies.

The report suggests that such an agency could be operated by a professional staff under the direction of an intertrade board composed of representatives of all of the various trade associations which could be concerned, ranging from mill to distributor organizations. Trade associations could help to stimulate the intelligent application of the guides thus provided, the report states, by fostering conferences of junior executives at which the application of statistics to the problems of individual companies would be demonstrated.

Four policies for managing product inventories which are examined in the report are (1) manufacturing to order only, (2) selling from current or future production, (3) manufacturing to stock, and (4) the flexible policy of manufacturing to order or to stock as the price outlook



warrants. It is pointed out that a choice among these policies is largely limited by the character of the product and the circumstances of the individual company, so that no single policy can be recommended for general adoption.

There is offered in the report, however, a check list of important considerations which a company should take into account in developing its policy. Classifications under which these factors are set forth are: risks involved in stocking product; importance of overhead costs in product's manufacture; market conditions under which product has to be sold; the company's productive equipment; its management talent; its selling methods; its market position; and its resources and obligations.

The place of inventories in the textile business is examined and inventory trends during the 1930's are reviewed in detail in the first half of the report as a basis for the recommendations contained in the latter half.

Copies of the 70-page study of *Inventory Trends in Textile Production and Distribution*, as well as others in the series, may be obtained at 50 cents each from the Textile Foundation, Industrial Building, National Bureau of Standards, Washington, D. C. The Foundation also is accepting orders for the entire series at \$3.00.

Other monographs in the series are:

1. *What To Do About Denim Stocks*—A case study of inventory problems in the manufacture of staple finished goods. 34 pages.
2. *Minimizing Inventory Losses in the Men's Wear Division of the Wool-Textile Industry*—An appraisal of the policy of manufacturing styled finished goods to order. 40 pages.
3. *Inventory Guides in Cotton Fine-Goods Manufacture*—An analysis of mill experience in producing staple and styled gray goods. 46 pages.
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6. *Stock and Production Policies in Full Fashioned Hosiery Manufacture*—The experience of textile mills selling a consumer product. 35 pages.

#### Viscose Plans Benefits for Its Service Men

Notice has been sent to all employees of the American Viscose Corp. on military and naval training leave advising them that the company will reimburse them for the cost of the face amount of \$1,000 of national service life insurance during the period they are in service, William C. Appleton, president, announced recently. Under this plan, employees already benefiting from the company's group life insurance coverage are given a period of 90 days in which to secure national service life insurance.

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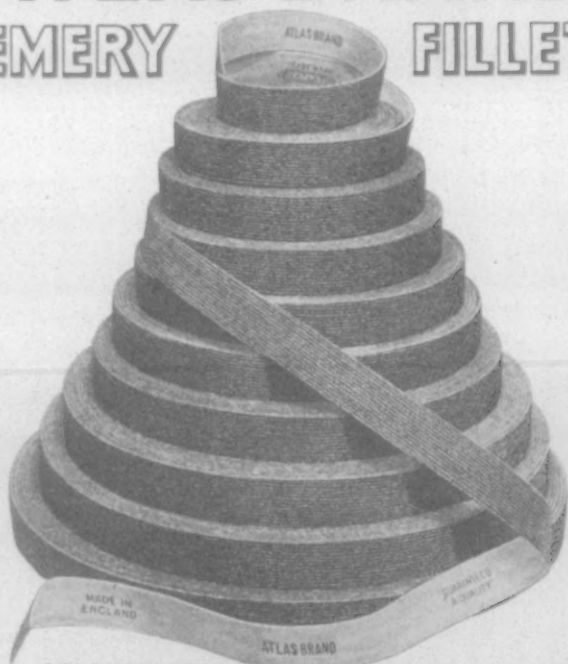
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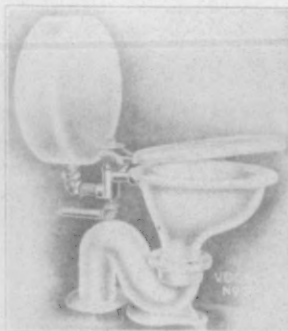
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